

SEPT 1982

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NASA-CR-170530

THEMATIC MAPPER

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(E83-10264) THEMATIC MAPPER PROTOFLIGHT
MODEL PRESHIPMENT REVIEW DATA PACKAGE.
VOLUME 4: APPENDIX. PART A: MULTIPLEXER
DATA, BOOK 1 Final Report (Santa Barbara
Research Center) 745 p HC A99/MF A01

N83-26133

Unclas
G3/43 00264

THEMATIC MAPPER

Prepared for
GODDARD SPACE FLIGHT CENTER
Greenbelt, Maryland 20771
CONTRACT NAS 5-24200

FLIGHT MODEL
PRESHIPMENT REVIEW
DATA PACKAGE
VOLUME IV - APPENDIX
PART A - MULTIPLEXER DATA BOOK 1

Article IV - 3A

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PROTOFLIGHT MODEL
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PART A - MULTIPLEXER DATA - BOOK I
Article IV - 3A

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APPENDIX A

MULTIPLEXER PERFORMANCE DATA

The enclosed data is from the final performance tests on the Flight Model Multiplexer at ambient temperature. Included in the set of data is the following:

Power Supply Test Data	Section 1
Miscellaneous Data	Section 2
Input Buffer Test Data	Section 3
Gain and Offset Errors	
A/D Reference Voltages	
External DC Restore Test	
AC Response Test	
Drop Test	
DCR Time Constant	
A/D Threshold Test Data.	Section 4
Cross-talk Test Data	Section 5
Thermistor Test Data	Section 6
Bilevel Commands Signal Parameters Data. .	Section 7
A/D Threshold Test Data - Ambient,	
Voltage Margin Low Bus	Section 8
Miscellaneous Data.	Section 9
A/D Threshold Test Data - Ambient,	
Voltage Margin Low Bus	Section 10
Cross-talk Test Data - per FR 4268 . . .	Section 11
Serial Data and Bit Clock Parameters. . .	Section 12
Wire Check Data Sheets	Section 13

Other acceptance data taken at +50°C, -15°C, before and after vibration, and prior to rework of the Multiplexer is retained in SBRC's Product Assurance data files, available for review upon request.

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Appendix A

Multiplexer Performance Data

Power Supply Test

Section 1

REVIEWED 7/11/81 PAGES 1



NO 30 31

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
1981/11/30 08:57:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.1 POWER SUPPLY TEST

PAGE 1

MIN(V) DVM(V) MAX(V)

LOADS OFF

-3.0 NOM BUS

-3.1 BUS VOLTAGE 29.5500 30.2132 30.4500

-3.2 BUS CURRENT 0.3300 0.3660 0.4127

-3.3 INPUT CURRENT STATUS

A OUT 3.0000 3.9754 5.0000
B OUT 3.0000 3.9762 5.0000

-3.4 UNTI ON STATUS

A OUT 4.0000 4.9441 6.0000
B OUT 4.0000 4.9444 6.0000

-3.5 SECONDARY VOLTAGE TELEMETRY

A OUT
18.8 4.0540 4.2251 4.4800
5.2 4.0480 4.2544 4.4740
-2.3 3.8010 3.9065 4.2010
-5.2 4.3360 4.4005 4.7920
-13.0 4.1340 4.3187 4.5700
B OUT
18.8 4.0540 4.2251 4.4800
5.2 4.0480 4.2554 4.4740
-2.3 3.8010 3.9053 4.2010
-5.2 4.3360 4.4005 4.7920
-13.0 4.1340 4.3189 4.5700

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
 1981/11/30 08:57:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.1 POWER SUPPLY TEST

PAGE 2



NOV 30 '81

	MIN(V)	DUM(V)	MAX(V)
-3.6 A/D REFERENCE TELEMETRY VOLTAGES			
A OUT			
A/D 1	1.9680	1.9854	1.9980
A/D 2	1.9680	1.9923	1.9980
A/D 3	1.9680	1.9899	1.9980
A/D 4	1.9680	1.9909	1.9980
A/D 5	1.9680	1.9863	1.9980
A/D 6	1.9650	1.9831	1.9950
A/D 7	1.9680	1.9894	1.9980
B OUT			
A/D 1	1.9680	1.9854	1.9980
A/D 2	1.9680	1.9923	1.9980
A/D 3	1.9680	1.9899	1.9980
A/D 4	1.9680	1.9909	1.9980
A/D 5	1.9680	1.9863	1.9980
A/D 7	1.9680	1.9894	1.9980

LOADS ON, REPEAT -3.4, -3.5, -3.6

-3.7 REPEAT -3.4

-3.4 UNIT ON STATUS

A OUT	2.0000	2.6774	3.0000
B OUT	2.0000	2.6774	3.0000

-3.8 REPEAT -3.5

-3.5 SECONDARY VOLTAGE TELEMETRY

A OUT			
18.8	1.9662	2.0855	2.3072
5.2	1.6587	1.7868	1.9467
-2.3	1.8435	1.8957	2.1630

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HS-716 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
1981/11/30 08:57:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

PAGE 3

3.5.1 POWER SUPPLY TEST

	MIN(V)	DVM(V)	MAX(V)
-5.2	2.1030	2.1681	2.4679
-13.0	2.0050	2.1226	2.3536
B OUT			
18.8	1.9662	2.0890	2.3072
5.2	1.6587	1.8016	1.9467
-7.3	1.8435	1.9176	2.1630
-5.2	2.1030	2.1879	2.4679
-13.0	2.0050	2.1467	2.3536

-3.9 REPEAT -3.6

-3.6 A/D REFERENCE TELEMETRY VOLTAGES

A OUT			
A/D 1	0.9500	0.9727	1.0500
A/D 2	0.9500	0.9754	1.0500
A/D 3	0.9500	0.9847	1.0500
A/D 4	0.9500	0.9791	1.0500
A/D 5	0.9500	0.9669	1.0500
A/D 7	0.9500	0.9706	1.0500
R OUT			
A/D 1	0.9500	0.9846	1.0500
A/D 2	0.9500	0.9783	1.0500
A/D 3	0.9500	0.9850	1.0500
A/D 4	0.9500	0.9809	1.0500
A/D 5	0.9500	0.9809	1.0500
A/D 7	0.9500	0.9767	1.0500

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
 1981/11/30 08:57:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.15.1 POWER SUPPLY TEST

PAGE 4



01 30 21

	MTN(V)	DVM(V)	MAX(V)
--	--------	--------	--------

LOADS OFF

-4.0 LOW BUS

-4.1 BUS VOLTAGE	28.6500	29.3680	29.5500
------------------	---------	---------	---------

-4.2 BUS CURRENT	0.3300	0.3526	0.4127
------------------	--------	--------	--------

-4.3 INPUT CURRENT STATUS

A OUT	3.0000	3.8316	5.0000
B OUT	3.0000	3.8301	5.0000

-4.4 UNIT ON STATUS

A OUT	4.0000	4.8059	6.0000
B OUT	4.0000	4.8060	6.0000

-4.5 SECONDARY VOLTAGE TELEMETRY

A OUT			
18.8	3.9320	4.1010	4.3460
5.2	3.9270	4.1349	4.3400
-2.3	3.6870	3.7923	4.0750
-5.2	4.2060	4.2799	4.6480
-13.0	4.0100	4.1875	4.4330
B OUT			
18.8	3.9320	4.1010	4.3460
5.2	3.9270	4.1350	4.3400
-2.3	3.6870	3.7923	4.0750
-5.2	4.2060	4.2798	4.6480
-13.0	4.0100	4.1876	4.4330

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HS-216 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3
 1981/11/30 08:57:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 13.5.1 POWER SUPPLY TEST

PAGE 5



REV 30 '81

	MIN(V)	DVM(V)	MAX(V)
-4.6 A/D REFERENCE TELEMETRY VOLTAGES			
A OUT			
A/D 1	1.9680	1.9849	1.9980
A/D 2	1.9680	1.9917	1.9980
A/D 3	1.9680	1.9893	1.9980
A/D 4	1.9680	1.9903	1.9980
A/D 5	1.9680	1.9858	1.9980
A/D 6	1.9650	1.9832	1.9950
A/D 7	1.9680	1.9888	1.9980
B OUT			
A/D 1	1.9680	1.9849	1.9980
A/D 2	1.9680	1.9917	1.9980
A/D 3	1.9680	1.9893	1.9980
A/D 4	1.9680	1.9904	1.9980
A/D 5	1.9680	1.9858	1.9980
A/D 7	1.9680	1.9888	1.9980

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
 1981/11/30 08:57:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 14.5.1 POWER SUPPLY TEST

PAGE 6



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	MIN(V)	DOM(V)	MAX(V)
--	--------	--------	--------

LOADS OFF

-5.0 HIGH BUS

-5.1 BUS VOLTAGE	30.4500	31.1264	31.3500
------------------	---------	---------	---------

-5.2 BUS CURRENT	0.3300	0.3809	0.4127
------------------	--------	--------	--------

-5.3 INPUT CURRENT STATUS

A OUT	3.0000	4.1328	5.0000
B OUT	3.0000	4.1347	5.0000

-5.4 UNIT ON STATUS

A OUT	4.0000	5.0962	6.0000
B OUT	4.0000	5.0963	6.0000

-5.5 SECONDARY VOLTAGE TELEMETRY

A OUT			
18.8	4.1750	4.3592	4.6150
5.2	4.1690	4.3890	4.6000
-2.3	3.9150	4.0280	4.3270
-5.2	4.4660	4.5298	4.9360
-13.0	4.2580	4.4621	4.7070
B OUT			
18.8	4.1750	4.3592	4.6150
5.2	4.1690	4.3881	4.6000
-2.3	3.9150	4.0265	4.3270
-5.2	4.4660	4.5297	4.9360
-13.0	4.2580	4.4622	4.7070

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 7
 1981/11/30 08:57:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 13.5.1 POWER SUPPLY TEST



REV 30 '81

	MIN(V)	DVM(V)	MAX(V)
--	--------	--------	--------

-5.6 A/D REFERENCE TELEMETRY VOLTAGES

A OUT

A/D 1	1.9680	1.9859	1.9980
A/D 2	1.9680	1.9928	1.9980
A/D 3	1.9680	1.9905	1.9980
A/D 4	1.9680	1.9915	1.9980
A/D 5	1.9680	1.9867	1.9980
A/D 6	1.9650	1.9833	1.9950
A/D 7	1.9680	1.9900	1.9980

B OUT

A/D 1	1.9680	1.9859	1.9980
A/D 2	1.9680	1.9928	1.9980
A/D 3	1.9680	1.9905	1.9980
A/D 4	1.9680	1.9916	1.9980
A/D 5	1.9680	1.9867	1.9980
A/D 7	1.9680	1.9900	1.9980

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Appendix A

Multiplexer Performance Data

Miscellaneous Data

Section 2

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
1981/11/30 08:59:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
PEN CODE

PAGE 8

308C 1CDJ FFD2	10F0 F070 F0F0	F0F0 F0F0 F0F0	F0F0 F0F0 F0F0	F0F0 F0F0 F0F0	F0F0 F0F0 F0F0	F0F0 F0F0 F0F0	F0F0 F0F0 F0F0
	F054 6F17 396F	55FC 712C C062	014D DA10 7623	1C2D 82E7 1124			
	F603 54AF A433	B94E 1D6F 57A8	6818 E521 D916	BA08 4042 96CF			
	FC94 DE59 F741	81B1 DD1F AA6C	90D7 4993 9114	1E80 722A 0C49			
6F55 FC71 2CC0	620E 4DDA 1076	231C 2D82 F711	34F6 0354 AF-A4	33F9 4F1D 6157			
	A830 BCF0 F0F0	F0F0 F0F0 F0F0	F0F0 F0F0 F0F0	F0F0 F0F0 F0F0			
	4AD5 CC39 AFF6	E6A6 3731 7C75	25D0 06DF D8D5	4D1E A37C F407			
	DC9C CC79 3EF1	AFAF 67C4 AAAD	23DD 9188 600A	C5F8 783C A412			
A735 7565 4100	93D1 03E8 CD7E	7AF9 9F8A 2413	F1CD 3FEB FFD2	8374 F627 153D			
	E667 843E AB6E	D4CE 7DB6 D2C3	F5E0 6A1C 6D13	E15C 3DA6 F682			
	308C 00FF 1103	0180 44F7 004D	0000 141F C084	1D80 44FF 4089			
	1020 01F2 308E	0001 20E4 800E	1800 00F0 10C4	0120 20FC 8811			
04AJ 40FA 6801	0504 00FC 400E	0000 81F1 1007	0600 80F5 2101	0082 881A 2089			
	0080 40F1 800F	0000 4511 7000	4200 A0FD 0002	0621 001F 402B			
	0584 00FD 0008	0400 00D9 141E	0400 88FA 0022	0100 08FE 000D			
	0000 A2F9 640E	0000 00FD 800A	0720 86FF 622A	0020 0017 5047			

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TEST PASSED, PEN CODE REFERENCE DATA ARE

546F 1739 6F55	FC71 2CC0 620E	4DDA 1076 231C	2D82 F711 34F6	0354 AF-A4 33F9
	411D 6157 AB6E	18F5 21D9 16EA	0840 4246 CFFC	940F 59F7 411D
	F1DD 1FAA 6C90	D749 9391 140F	8072 2A0C 496F	55FC 712C C062
	0E4D DA10 7623	1C2D 82E7 1124	F603 54AF A433	B94E 1D6F 57A8



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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
1981/11/30 08:59:36 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
14.5.2.1-2 SYNC

PAGE 9

MAJOR FRAME NUMBER	MINOR FRAME NUMBER															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

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TEST PASSED, DATA ARE ALL 308C 1CDS

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3
 1981/11/30 08:59:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.2.1-3 TIME CODE

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308C 1CD5 02F1	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
308C 1CD5 02D2	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
308C 1CD5 02C3	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
308C 1CD5 02B4	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
308C 1CD5 02A5	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
308C 1CD5 0296	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF

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HS-736 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 11
 1981/11/30 09:00:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.17.2.1-4 SPACECRAFT TELFOMETRY



00 30 74

MAJOR FRAME 1 TO 192

SUB
 MAJOR
 FRAME

MAJOR FRAME NUMBER

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

PART 1 TEST PASSED, DATA ARE E1 D2 C3 B4 A5 96 87 78 69 5A 4B 3C 2D 1E 0F

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HS-736 THEMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3
 1981/11/30 09:00:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.2.1-4 SPACECRAFT TELEMETRY

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EX 30 78

MAJOR FRAME 193 TO 384

SUPER MAJOR FRAME	MAJOR FRAME NUMBER															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

PART 2 TEST PASSED, DATA ARE F1 D2 C3 B4 A5 96 87 78 69 5A 4B 3C 2D 1E 0F

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 13
1981/11/30 09:00:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.2.1-4 SPACECRAFT TELEMETRY

MAJOR FRAME 385 TO 455

SUPER MAJOR FRAME	MAJOR FRAME NUMBER															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	P	P	P	P	P	P	P									

PART 3 TEST PASSED, DATA ARE E1 D2 C3 B4 A5 96 87 78 69 5A 4B 3C 2D 1F 0F

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
1981/11/30 09:00:42 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.2.1-5 MAJOR FRAME COUNT

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NY 30 81

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OF POOR QUALITY

00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
80 81 82 83 84 85 86 87 88 89 8A 8B 8C 8D 8E 8F
90 91 92 93 94 95 96 97 98 99 9A 9B 9C 9D 9E 9F
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 AA AB AC AD AE AF
E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF
C0 C1 C2 C3 C4 C5 C6 C7 C8 C9 CA CB CC CD CE CF
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 DA DB DC DD DE DF
E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF
F0 F1 F2 F3 F4 F5 F6 F7 F8 F9 FA FB FC FD FE FF
00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
80 81 82 83 84 85 00 01 02 03 04 05 06 07 08 09
0A 0B 0C 0D 0E 0F 10 11 12 13 14 15 16 17 18 19
1A 1B 1C 1D 1E 1F 20 21 22 23 24 25 26 27 28 29
2A 2B 2C 2D 2E 2F 30 31 32 33 34 35 36 37 38 39
3A 3B 3C 3D 3E 3F 40

TEST PASSED



REV 30 71

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3
1981/11/30 09:00:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.2.1-5 MAJOR FRAME COUNT

PAGE 15

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NARROW PULSE ON

00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
80 81 82 83 84 85 86 87 88 89 8A 8B 8C 8D 8E 8F
90 91 92 93 94 95 96 97 98 99 9A 9B 9C 9D 9E 9F
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 AA AB AC AD AE AF
B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 BA BB BC BD BE BF
C0 C1 C2 C3 C4 C5 C6 C7 C8 C9 CA CB CC CD CE CF
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 DA DB DC DD DE DF
E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF
F0 F1 F2 F3 F4 F5 F6 F7 F8 F9 FA FB FC FD FE FF
00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
80 81 82 83 84 85 86 87 88 89 8A 8B 8C 8D 8E 8F
90 91 92 93 94 95 96 97 98 99 9A 9B 9C 9D 9E 9F
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 AA AB AC AD AE AF
B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 BA BB BC BD BE BF
C0 C1 C2 C3 C4 C5 C6 C7 C8 C9 CA CB CC CD CE CF
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 DA DB DC DD DE DF
E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF
F0 F1 F2 F3 F4 F5 F6 F7 F8 F9 FA FB FC FD FE FF
0A 0B 0C 0D 0E 0F 10 11 12 13 14 15 16 17 18 19
1A 1B 1C 1D 1E 1F 20 21 22 23 24 25 26 27 28 29
2A 2B 2C 2D 2E 2F 30 31 32 33 34 35 36 37 38 39
3A 3B 3C 3D 3E 3F 40

TEST PASSED



RV 30 78

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3
1981/11/30 09:01:13 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

PAGE 16

3.5.2.1-4 RETICLE

RETICLE 1 1/0 = 0 H/L = H
RETICLE 2 1/0 = 1 H/L = H

	MIN(V)	DVM(V)	MAX(V)
RETICLE ON STATUS A	-0.8000	-0.0178	0.8000
RETICLE ON STATUS R	-0.8000	-0.1051	0.8000

308C 1C05 7FF1	7D7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7B 7D7D 7D7D	7C7B 7D7D 7D7C	7C7B 7D7D 7D7D	7C7B 7D7C 7D7C
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D	7C7D 7D7D 7D7D
	7C7C 7D7C 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
308C 1C05 7FD2	7D7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7B 7C7D 7D7C	7C7C 7D7D 7D7C	7C7B 7C7D 7D7D	7C7B 7D7C 7D7C
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7C 7D7C 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D

TEST PASSED FOR FORMAT DATA

ORIGINAL PAGE IS
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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
 1981/11/30 09:01:23 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.2.1-4 RETICLE

PAGE 17



RETICLE 1 1/0 = 1 H/L = H
 RETICLE 2 1/0 = 1 H/L = H

	MIN(V)	DVM(V)	MAX(V)
RETICLE ON STATUS A	3.5000	4.9460	5.5000
RETICLE ON STATUS B	3.5000	4.9435	5.5000

3080C 1CDS 7FF1	7D7C 7D7D 7D7D	7D7C 7D7D 7DFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FF00	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
3080C 1CDS 7FD2	0000 0000 0000	0000 0000 007D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7E 7D7D 7D7D	7C7E 7D7D 7D7C	7C7E 7D7D 7D7D	7C7E 7D7C 7D7C
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D

TEST PASSED FOR FORMAT DATA

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3
 1981/11/30 09:01:33 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 31.5.2.1-4 RETICLE

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NO 30 81

RETICLE 1 1/0 = 1 H/L = H
 RETICLE 2 1/0 = 0 H/L = H

	MIN(V)	DVM(V)	MAX(V)
RETICLE ON STATUS A	-0.8000	-0.0177	0.8000
RETICLE ON STATUS B	-0.8000	-0.1054	0.8000
308C 1CD5 7FF1	7D7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7C 7D7D
	7C7E 7D7D 7D7D	7C7E 7D7D 7D7C	7C7E 7D7D 7D7D
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D
	7C7C 7D7C 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
308C 1CD5 7FD2	7D7C 7D7D 7D7D	7C7C 7C7D 7D7D	7C7C 7D7D 7D7D
	7C7E 7C7D 7D7C	7C7E 7D7D 7D7C	7C7E 7D7D 7D7D
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D
	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D

TEST PASSED FOR FORMAT DATA

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODH .. FLT. S/N 3
 1981/11/30 09:01:43 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

PAGE 19



NO 30 '81

3.17.2.1-6 RETICLE

RETICLE 1 1/0 = 1 H/L = L
 RETICLE 2 1/0 = 1 H/L = L

	MIN(V)	DVM(V)	MAX(V)
RETICLE ON STATUS A	3.5000	4.9457	5.5000
RETICLE ON STATUS B	3.5000	4.9446	5.5000

308C 1CD5 7FE1	7D7C 7D7D 7D7D	7D7C 7D7D FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
308C 1CD5 7FD2	0000 0000 0000	0000 0000 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7E 7D7D 7D7D	7C7C 7D7D 7D7D	7C7E 7D7D 7D7C	7C7E 7D7C 7D7C
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7E 7D7D 7D7D

TEST PASSED FOR FORMAT DATA

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODFI.. FLT. S/N 3
 1981/11/30 09:01:53 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.12.1-4 RETICLE

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NO 30 81

RETICLE 1 1/0 = 0 H/L = H
 RETICLE 2 1/0 = 0 H/L = H

	MIN(V)	DUM(V)	MAX(V)
RETICLE ON STATUS A	-0.8000	-0.0177	0.8000
RETICLE ON STATUS B	-0.8000	-0.1010	0.8000

308C 1CDS ZF+1	ZD7C ZD7D ZD7E	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7C 7D7D 7D7D	7C7C 7D7D 7D7C	7C7E 7C7D 7D7C	7C7E 7D7C 7D7C
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D	7C7D 7D7D 7D7D
	7C7C 7D7C 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
308C 1CDS ZID2	ZD7C ZD7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7E 7C7D 7D7D	7C7C 7D7D 7D7C	7C7E 7C7D 7D7C	7C7E 7D7C 7D7C
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7C7C 7D7D 7D7D	7C7D 7D7D 7D7D
	7C7C 7D7C 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7E 7D7D 7D7D

TEST PASSED FOR FORMAT DATA

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NO 10 81

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3
1981/11/30 09:02:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
P.L.L. 1-2 LINE STOP

PAGE 21

308C 1CD5 80D2	7D7D 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7C 7D00 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 00FF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
308C 1CD5 71C3	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
308C 1CD5 7FE4	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	7D7D 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7D7D 7D7D 7D7D	7C7C 7D7D 7C7D	7D7C 7D7D 7D7D	7D7D 7D7D 7D7D	7D7D 7D7D 7D7D
	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
308C 1CD5 7EAS	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
308C 1CD5 8096	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000

TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 22
 1981/11/30 09:02:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.11.2.1-4 LINE LENGTH AND SCAN DIRECTION CODE

HAG
 TEST
 S27

NO 10 '81

SCAN DIRECTION IS PLUS

308C 1CD5 80D2	7D7D 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7C 7D00 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 00FF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF

308C 1CD5 71C3	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FF00 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 00FF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF

308C 1CD5 7EB4	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FF7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7C	7C7C 7D7D 7D7C
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7D7C 7D7C 7D7D	7C7D 7D7D 7D7D
	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D

308C 1CD5 7EA5	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	0000 0000 0000

308C 1CD5 8096	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3

PAGE 23

1981/11/30 09:02:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.2.1-B LINE LENGTH AND SCAN DIRECTION CODE

SCAN DIRECTION IS MINUS

308C 1CD5 80D2	797D 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D
	7C7C 7D00 0000	0000 0000 0000	0030 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0300	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 00FF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF

308C 1CD5 7FC3	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FF00 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000	0000 0000 0000
	0000 00FF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF

308C 1CD5 7FB4	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FF7D 7D7D	7C7B 7D7D 7D7C	7C7B 7D7D 7D7D	7C7B 7D7D 7D7D	7C7B 7D7D 7D7D
	7D7C 7D7D 7D7D	7C7C 7D7D 7C7D	7D7C 7D7D 7D7D	7D7D 7D7D 7D7D	7D7D 7D7D 7D7D
	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D	7C7C 7D7D 7D7D

308C 1CD5 7FA5	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF

308C 1CD5 8096	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	0000 0000 0000	0000 0000 0000	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF
	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF	FFFF FFFF FFFF

TEST PASSED



REV 30 81

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REV 30 78

HS-236 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
1981/11/30 09:02:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
R.I.T. 1-9 PREAMBLE

PAGE 24

MAJOR FRAME NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
451			P	P	P	P	P	P	P	P	P	P	P	P	P	P
452	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
453	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
454	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
455	X	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
308C 1CDS 4457	308C 1CDS 01E1	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0
	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0
	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0
	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0	F0F0

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456 P

TEST FAILED! DATA SHOULD BE ALL F0

REV 30 78

Test failed due to noise in Tester. See retest passed
on pg 25. By 11/30/81



HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 20
 1981/11/30 09:05:25 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.2.1-9 PREAMBLE



REV 30 '81

MAJOR FRAME NUMBER	MINOR FRAME NUMBER															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
451			P	P	P	P	P	P	P	P	P	P	P	P	P	P
452	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
453	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
454	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
455	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
456	P															

TEST PASSED, DATA ARE ALL F0

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Appendix A

Multiplexer Performance Data

Input Buffer Test Data

- Gain and Offset Errors
- A/D reference Voltages
- External DC Restore Test
- AC Response Test
- Droop Test
- DCR Time Constant

Section 3

12 REVIEWED PAGES
26-73
17/1/81



HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 26

1981/11/30 09:25:59 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.1-1 INPUT BUFFER TEST (GAIN & OFFSET ERRORS)

VARY + INPUT [.....VARY - INPUT.....]

BAND	SENSOR	[.....-2V.....]				[.....0V.....]				[.....+2V.....]			
		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)	
		.5SC	FSCL	DCR=L	DCR=P	.5SC	FSCL	DCR=L	DCR=P	.5SC	FSCL	DCR=L	DCR=P
		-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
		2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0
1	1	0.39	0.80	0.2	0.4	0.63	0.77	0.2	-0.5	0.54	0.70	0.2	-0.4
1	2	0.18	0.65	0.0	0.3	0.46	0.60	0.1	-0.6	0.36	0.52	0.1	-0.4
1	3	0.54	1.00	-0.3	-0.1	0.80	0.96	-0.3	-0.2	0.71	0.89	-0.3	-0.0
1	4	0.59	0.92	0.5	-2.6	0.79	0.94	0.4	-0.6	0.70	0.87	0.5	-0.4
1	5	0.67	1.00	0.1	-0.5	0.89	1.02	0.1	-0.5	0.79	0.95	0.1	-0.4
1	6	0.43	0.81	0.0	0.8	0.65	0.80	0.1	-0.5	0.56	0.72	0.1	-0.3
1	7	0.65	1.03	0.2	-0.4	0.87	1.01	0.1	-0.5	0.78	0.94	0.2	-0.5
1	8	0.70	1.12	-0.0	0.0	0.92	1.08	-0.0	-0.6	0.84	1.01	0.0	-0.4
1	9	0.44	0.90	-0.3	0.3	0.69	0.83	-0.2	-0.5	0.59	0.76	-0.2	-0.3
1	10	0.42	0.83	-0.2	-1.0	0.64	0.79	-0.2	-0.5	0.55	0.72	-0.1	-0.3
1	11	0.40	0.81	0.0	-0.2	0.63	0.78	0.0	-0.5	0.54	0.72	0.1	-0.3
1	12	0.39	0.84	-0.4	0.7	0.64	0.77	-0.3	-0.5	0.55	0.69	-0.3	-0.3
1	13	0.42	0.93	-0.6	-0.2	0.68	0.83	-0.6	-0.5	0.59	0.75	-0.6	-0.4
1	14	0.55	0.95	-0.0	-1.2	0.77	0.91	-0.0	-0.7	0.69	0.83	0.0	-0.5
1	15	0.43	0.88	0.1	-0.3	0.68	0.83	0.2	-0.6	0.59	0.75	0.2	-0.4
1	16	0.49	0.87	0.0	-0.8	0.73	0.83	0.1	-0.6	0.62	0.74	0.1	-0.4

ORIGINAL PAGE IS
OF POOR QUALITY

TEST PASSED

See data for Band 1 sensor 8 to Verify FR# F3660
was a tester failure no a unit failure. By 11/30/81

See Q.C.H.R.
Sheet #5 Line #43





REV 30 78

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 27
1981/11/30 09:25:59 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.1-1 INPUT BUFFER TEST (GAIN & OFFSET ERRORS)

VARY + INPUT [.....] VARY - INPUT [.....]

		[.....-2V.....]				[.....0V.....]				[.....+2V.....]			
		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)	
BAND	SENSOR	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P
		-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
		2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0
2	1	0.57	1.01	0.1	0.1	0.80	0.95	0.1	-0.5	0.71	0.89	0.2	-0.5
2	2	0.57	1.06	0.3	0.4	0.82	0.98	0.3	-0.6	0.73	0.91	0.3	-0.4
2	3	0.49	0.98	-0.3	-0.4	0.73	0.89	-0.2	-0.6	0.64	0.83	-0.2	-0.4
2	4	0.62	0.98	0.4	-2.4	0.82	0.98	0.5	-0.6	0.73	0.90	0.5	-0.4
2	5	0.51	0.95	0.5	0.5	0.74	0.91	0.5	-0.7	0.66	0.85	0.5	-0.5
2	6	0.61	1.17	-0.3	1.8	0.86	1.04	-0.2	-0.3	0.79	0.97	-0.2	-0.3
2	7	0.55	1.10	0.2	-0.6	0.82	0.97	-0.1	-0.4	0.72	0.90	-0.1	-0.5
2	8	0.56	1.00	0.3	-2.7	0.74	0.92	0.3	-0.7	0.69	0.87	0.3	-0.5
2	9	0.75	1.17	-0.2	-0.5	0.97	1.12	-0.2	-0.7	0.88	1.06	-0.1	-0.5
2	10	0.56	1.01	0.1	0.2	0.79	0.94	0.1	-0.7	0.70	0.88	0.1	-0.5
2	11	0.52	0.96	-0.0	-0.6	0.74	0.91	0.0	-0.6	0.66	0.84	-0.0	-0.5
2	12	0.48	0.92	-0.1	-0.3	0.70	0.86	-0.1	-0.9	0.62	0.79	-0.0	-0.6
2	13	0.69	1.13	0.3	-0.4	0.92	1.06	0.3	-0.8	0.83	0.99	0.4	-0.6
2	14	0.88	1.27	0.2	-1.3	1.10	1.24	0.3	-0.8	1.00	1.16	0.2	-0.6
2	15	0.83	1.23	-0.0	-0.4	1.05	1.19	-0.1	-0.6	0.95	1.12	-0.0	-0.6
2	16	1.00	1.42	0.1	0.1	1.24	1.36	0.1	-0.8	1.14	1.27	0.1	-0.6

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TEST PASSED



EX 30 '81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 28
1981/11/30 09:25:59 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.13.1-1 INPUT BUFFER TEST (GAIN & OFFSET ERRORS)

VARY + INPUT [.....] VARY - INPUT [.....]

		[.....-2V.....]				[.....0V.....]				[.....+2V.....]					
		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)			
BAND	SENSOR	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P		
		-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0		
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO		
		2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0		
3	1	0.44	0.89	0.2	-0.2	0.68	0.82	0.3	-0.6	0.59	0.75	0.2	-0.4	0.54	0.74
3	2	0.40	0.89	-0.2	-0.1	0.65	0.81	-0.2	-0.7	0.57	0.74	-0.2	-0.4	0.52	0.75
3	3	0.40	0.90	0.0	-0.5	0.67	0.83	0.0	-0.6	0.58	0.76	0.1	-0.5	0.53	0.77
3	4	0.49	0.87	-0.1	-2.1	0.71	0.86	-0.1	-0.5	0.62	0.79	-0.0	-0.4	0.57	0.80
3	5	0.33	0.74	0.3	-0.0	0.56	0.71	0.3	-0.5	0.47	0.65	0.3	-0.4	0.42	0.66
3	6	0.49	0.89	0.0	0.0	0.71	0.86	-0.0	-0.6	0.63	0.79	0.0	-0.5	0.58	0.80
3	7	0.38	0.80	-0.3	-0.3	0.60	0.77	-0.3	-0.5	0.52	0.70	-0.3	-0.4	0.47	0.71
3	8	0.52	0.96	0.1	0.0	0.76	0.91	0.1	-0.6	0.66	0.84	0.1	-0.5	0.62	0.85
3	9	0.52	0.97	-0.2	-0.3	0.76	0.91	-0.3	-0.6	0.67	0.84	-0.3	-0.5	0.62	0.85
3	10	0.67	1.09	-0.1	-0.9	0.93	1.04	-0.1	-0.7	0.83	0.97	-0.1	-0.5	0.77	0.98
3	11	0.55	1.01	0.1	-0.2	0.78	0.95	0.2	-0.6	0.71	0.88	0.1	-0.4	0.66	0.90
3	12	0.64	1.09	0.1	0.0	0.89	1.04	0.2	-0.6	0.80	0.96	0.1	-0.4	0.76	0.98
3	13	0.40	0.89	0.3	0.1	0.65	0.82	0.2	-0.5	0.57	0.75	0.3	-0.4	0.52	0.77
3	14	0.44	0.85	-0.4	-1.0	0.67	0.82	-0.4	-0.6	0.58	0.74	-0.3	-0.5	0.53	0.75
3	15	0.49	0.90	0.1	-0.1	0.74	0.87	0.1	-0.4	0.63	0.79	0.1	-0.3	0.59	0.80
3	16	0.44	0.80	-0.1	-0.7	0.67	0.78	-0.1	-0.6	0.57	0.70	-0.1	-0.4	0.51	0.71

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 29

1981/11/30 09:25:59 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.1-1 INPUT BUFFER TEST (GAIN & OFFSET ERRORS)

VARY + INPUT [.....] VARY - INPUT [.....]

BAND	SENSOR	[.....-2V.....]		[.....0V.....]		[.....+2V.....]		[.....-2V.....]		[.....0V.....]		[.....+2V.....]		[.....-2V.....]	
		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)	
		.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC
		-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0
		10	10	10	10	10	10	10	10	10	10	10	10	10	10
		2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0
4	1	0.45	0.86	-0.1	-0.4	0.66	0.82	0.0	-0.7	0.58	0.75	-0.0	-0.5	0.53	0.76
4	2	0.60	1.01	-0.2	-0.1	0.85	0.97	-0.1	-0.7	0.74	0.89	-0.1	-0.6	0.70	0.91
4	3	0.41	0.84	0.2	-0.4	0.63	0.81	0.2	-0.6	0.56	0.75	0.3	-0.5	0.51	0.76
4	4	0.44	0.78	0.1	-1.8	0.65	0.80	0.1	-0.7	0.56	0.72	0.1	-0.5	0.51	0.73
4	5	0.45	0.79	0.6	-0.5	0.65	0.81	0.6	-0.5	0.56	0.74	0.6	-0.4	0.52	0.75
4	6	0.35	0.74	-1.2	2.5	0.53	0.70	0.4	-0.5	0.49	0.66	0.5	-0.4	0.44	0.67
4	7	0.40	0.82	0.1	-0.1	0.66	0.81	0.1	-0.4	0.57	0.74	0.1	-0.3	0.52	0.75
4	8	0.43	0.82	0.2	-0.1	0.66	0.80	0.2	-0.7	0.56	0.72	0.2	-0.5	0.52	0.74
4	9	0.46	0.88	-0.0	-0.2	0.69	0.86	0.0	-0.7	0.60	0.79	0.0	-0.5	0.56	0.80
4	10	0.64	0.99	0.1	-1.2	0.87	0.99	0.1	-0.7	0.77	0.91	0.1	-0.5	0.71	0.92
4	11	0.55	0.93	-0.3	-0.3	0.77	0.92	-0.2	-0.7	0.68	0.85	-0.2	-0.6	0.64	0.87
4	12	0.53	0.93	-0.0	-0.1	0.76	0.91	0.0	-0.8	0.67	0.84	0.0	-0.6	0.62	0.85
4	13	0.50	0.92	-0.0	-0.3	0.72	0.88	-0.0	-0.7	0.64	0.82	-0.0	-0.5	0.59	0.83
4	14	0.67	1.02	0.1	-1.1	0.89	1.02	0.1	-0.7	0.79	0.94	0.2	-0.6	0.75	0.95
4	15	0.67	1.05	-0.2	-0.5	0.89	1.06	-0.1	-0.6	0.80	0.99	-0.2	-0.5	0.76	1.00
4	16	0.57	0.92	-0.0	-0.6	0.80	0.93	0.0	-0.7	0.70	0.86	0.0	-0.5	0.65	0.82

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 30
 1981/11/30 09:25:59 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.1-1 INPUT BUFFER TEST (GAIN & OFFSET ERRORS) EV 30 81



VARY + INPUT [.....] VARY - INPUT [.....]

BAND	SENSOR	[.....-2V.....]		[.....0V.....]		[.....+2V.....]		[.....-2V.....]		[.....0V.....]		[.....+2V.....]		[.....-2V.....]	
		GAIN (%)	OFFSET (MV)	GAIN (%)	OFFSET (MV)	GAIN (%)	OFFSET (MV)	GAIN (%)	OFFSET (MV)	GAIN (%)	OFFSET (MV)	GAIN (%)	OFFSET (MV)	GAIN (%)	OFFSET (MV)
		.5SC	FSCL	DCR=L	DCR=P	.5SC	FSCL	DCR=L	DCR=P	.5SC	FSCL	DCR=L	DCR=P	.5SC	FSCL
		-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
		2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0
5	1	0.77	1.15	0.1	-0.5	1.01	1.16	0.1	-0.7	0.90	1.08	0.1	-0.5	0.83	1.04
5	2	0.66	1.04	-0.0	-0.6	0.89	1.06	0.0	-0.3	0.81	0.99	0.0	-0.1	0.74	1.00
5	3	0.37	0.68	-0.1	-0.3	0.51	0.71	-0.0	-0.3	0.43	0.66	-0.0	-0.3	0.40	0.68
5	4	1.11	1.43	0.3	-1.1	1.29	1.46	0.3	-0.6	1.21	1.39	0.3	-0.6	1.16	1.40
5	5	0.69	1.01	0.4	-0.5	0.89	1.04	0.4	-0.6	0.80	0.97	0.5	-0.5	0.75	0.97
5	6	0.55	0.91	-0.1	0.6	0.78	0.93	-0.0	0.0	0.69	0.86	-0.0	0.2	0.64	0.87
5	7	0.44	0.80	0.1	-0.4	0.68	0.82	0.1	-0.4	0.58	0.75	0.1	-0.3	0.53	0.76
5	8	0.67	1.02	-0.3	-0.6	0.89	1.04	-0.3	-0.6	0.80	0.96	-0.2	-0.5	0.75	0.97
5	9	0.44	0.76	-0.3	-0.6	0.65	0.79	-0.2	-0.6	0.55	0.71	-0.2	-0.5	0.50	0.72
5	10	0.41	0.75	-0.4	-0.3	0.62	0.77	-0.3	-0.6	0.52	0.69	-0.3	-0.5	0.48	0.71
5	11	0.63	0.96	-0.0	-0.6	0.83	0.98	-0.0	-0.6	0.74	0.90	0.0	-0.6	0.69	0.92
5	12	0.46	0.80	0.2	-0.5	0.67	0.82	0.2	-0.6	0.58	0.74	0.3	-0.5	0.53	0.76
5	13	0.43	0.78	-0.3	-0.4	0.64	0.80	-0.3	-0.5	0.54	0.72	-0.3	-0.3	0.50	0.73
5	14	0.52	0.85	-0.4	-0.6	0.73	0.87	-0.4	-0.6	0.63	0.80	-0.4	-0.5	0.58	0.81
5	15	0.52	0.86	-0.0	-0.5	0.73	0.89	-0.0	-0.5	0.63	0.81	0.0	-0.4	0.59	0.83
5	16	0.43	0.77	0.3	-0.7	0.63	0.79	0.4	-0.6	0.54	0.72	0.4	-0.4	0.49	0.74

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 31

1981/11/30 09:25:59 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.1-1 INPUT BUFFER TEST (GAIN & OFFSET ERRORS)



REV 30 01

VARY + INPUT [.....VARY - INPUT.....]

BAND	SENSOR	[.....-7V.....]		[.....0V.....]		[.....+7V.....]		[.....-7V.....]		[.....0V.....]		[.....+7V.....]		[.....-7V.....]	
		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)	
		.5SC	FSC1	DCR=L	DCR=P	.5SC	FSC1	DCR=L	DCR=P	.5SC	FSC1	DCR=L	DCR=P	.5SC	FSC1
		-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0
		10	10	10	10	10	10	10	10	10	10	10	10	10	10
		2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0
6	1	0.58	0.89	0.9	-0.4	0.76	0.90	1.0	-0.5	0.66	0.83	0.6	-0.3	0.61	0.84
6	2	0.57	0.89	1.0	-0.5	0.76	0.91	1.0	-0.5	0.66	0.83	0.7	-0.2	0.61	0.85
6	3	0.50	0.81	0.9	-0.4	0.68	0.83	0.9	-0.4	0.58	0.75	0.6	-0.3	0.53	0.76
6	4	0.59	0.91	0.7	-0.7	0.77	0.94	0.8	-0.6	0.67	0.86	0.4	-0.2	0.63	0.89

TEST PASSED

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OF POOR QUALITY

HS-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 32

1981/11/30 09:25:59 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.1-1 INPUT BUFFER TEST (GAIN & OFFSET ERRORS) REV 30 '81



VARY + INPUT [.....] VARY - INPUT [.....]

		[.....-2V.....]				[.....0V.....]				[.....+2V.....]			
		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)		GAIN (%)		OFFSET (MV)	
BAND	SENSOR	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P	.5SC	FSC	DCR=L	DCR=P
		-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0	-2.0	-2.0	-3.0	-3.0
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
		2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	2.0	3.0	3.0
7	1	0.68	0.98	0.3	-0.7	0.88	1.01	0.3	-0.6	0.77	0.93	0.3	-0.5
7	2	0.58	0.93	-0.2	-0.5	0.80	0.95	-0.2	-0.7	0.71	0.88	-0.1	-0.5
7	3	0.58	0.93	0.4	-0.6	0.81	0.96	0.5	-0.8	0.72	0.88	0.5	-0.6
7	4	0.55	0.88	0.0	-0.7	0.76	0.90	0.1	-0.6	0.66	0.83	0.1	-0.5
7	5	0.50	0.84	0.4	-0.6	0.70	0.86	0.3	-0.6	0.61	0.79	0.4	-0.5
7	6	0.55	0.89	-0.2	-0.3	0.76	0.92	-0.2	-0.6	0.67	0.85	-0.1	-0.4
7	7	0.54	0.89	0.1	-0.6	0.75	0.92	0.1	-0.6	0.66	0.84	0.1	-0.4
7	8	0.54	0.86	-0.3	-0.4	0.73	0.89	-0.3	-0.5	0.64	0.82	-0.2	-0.4
7	9	0.63	0.97	0.0	-0.6	0.83	0.99	-0.0	-0.6	0.74	0.92	0.1	-0.5
7	10	0.54	0.87	-0.3	-0.5	0.75	0.90	-0.2	-0.7	0.64	0.82	-0.2	-0.5
7	11	0.67	1.01	-0.0	-0.5	0.88	1.03	0.0	-0.6	0.78	0.95	0.0	-0.5
7	12	0.48	0.81	0.4	-0.6	0.67	0.84	0.4	-0.5	0.58	0.77	0.4	-0.4
7	13	0.89	1.16	-0.3	-0.3	1.08	1.16	-0.2	-0.7	0.99	1.08	-0.2	-0.6
7	14	0.92	1.24	-0.2	-0.8	1.12	1.27	-0.1	-0.7	1.03	1.19	-0.1	-0.6
7	15	1.01	1.35	0.3	-0.7	1.22	1.37	0.3	-0.6	1.13	1.30	0.3	-0.6
7	16	0.79	1.12	0.1	-0.5	0.99	1.14	0.1	-0.7	0.90	1.07	0.1	-0.6

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 33

1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

[...DCK=LEVEL...] [.....D.C.R...PULSE]
BAND SENSOR INPUT A/D TP INPUT A/D TP INPUT A/D TP

1 2 3 4 5 6 / 8

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

A/D REFERENCE VOLTAGES

A/D	1	2	3	4	5	6	7
LOW	1.9680	1.9680	1.9680	1.9680	1.9680	1.9650	1.9680
DVM	1.9855	1.9923	1.9900	1.9910	1.9864	1.9840	1.9895
HIGH	1.9980	1.9980	1.9980	1.9980	1.9980	1.9950	1.9980

0.0550	1.9650	-0.0150	1.9970	2.0550	0.9650	4.1250	-0.0700
TO	TO	TO	TO	TO	TO	TO	TO
0.0750	1.9950	0.0150	2.0270	2.0850	0.9950	4.1550	-0.0300

1	1	-2V	0.0674	1.9797	0.0042	2.0117	2.0693	0.9857	4.1342	-0.0373	.	.	.	.	.	.
		0V	0.0648	1.9797	-0.0000	2.0117	2.0652	0.9846	4.1302	-0.0391	.	.	.	.	.	.
		+2V	0.0675	1.9798	0.0028	2.0117	2.0679	0.9842	4.1324	-0.0387	.	.	.	.	.	.
1	2	-2V	0.0608	1.9796	0.0053	2.0116	2.0703	0.9839	4.1353	-0.0410	.	.	.	.	.	.
		0V	0.0643	1.9796	-0.0008	2.0116	2.0646	0.9827	4.1299	-0.0429	.	.	.	.	.	.
		+2V	0.0676	1.9796	0.0029	2.0116	2.0680	0.9823	4.1330	-0.0423	.	.	.	.	.	.
1	3	-2V	0.0697	1.9793	0.0048	2.0116	2.0698	0.9874	4.1348	-0.0336	.	.	.	.	.	.
		0V	0.0644	1.9793	-0.0005	2.0116	2.0648	0.9863	4.1301	-0.0353	.	.	.	.	.	.
		+2V	0.0676	1.9793	0.0030	2.0116	2.0780	0.9859	4.1330	-0.0348	.	.	.	.	.	.
1	4	-2V	0.0697	1.9800	0.0007	2.0119	2.0659	0.9874	4.1311	-0.0339	.	.	.	.	.	.
		0V	0.0642	1.9800	-0.0011	2.0121	2.0643	0.9866	4.1296	-0.0353
		+2V	0.0661	1.9800	0.0014	2.0119	2.0665	0.9860	4.1317	-0.0350

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981/11/30 09:22:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

REV 30 '81

INPUT BUFFER TEST (READONLY)

[...DCK=EVFI...] C.....D.C.R....PULSE.....7											..P..X..F							
NO	S	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
1	5	-2V	0.0655	1.9796	0.0007	2.0115	2.0659	0.9881	4.1311	-0.0325	.	.	.	.	.	.	.	.
		0V	0.0638	1.9797	-0.0011	2.0117	2.0643	0.9871	4.1297	-0.0341	.	.	.	.	.	.	.	.
		+2V	0.0661	1.9797	0.0015	2.0116	2.0666	0.9867	4.1317	-0.0317	.	.	.	.	.	.	.	.
1	6	-2V	0.0654	1.9796	0.0031	2.0115	2.0681	0.9858	4.1330	-0.0370	.	.	.	.	.	.	.	.
		0V	0.0649	1.9796	-0.0001	2.0116	2.0652	0.9847	4.1302	-0.0386	.	.	.	.	.	.	.	.
		+2V	0.0671	1.9796	0.0026	2.0116	2.0676	0.9843	4.1325	-0.0382	.	.	.	.	.	.	.	.
1	7	-2V	0.0672	1.9797	0.0033	2.0116	2.0684	0.9881	4.1333	-0.0325	.	.	.	.	.	.	.	.
		0V	0.0648	1.9797	-0.0000	2.0116	2.0652	0.9870	4.1302	-0.0342	.	.	.	.	.	.	.	.
		+2V	0.0672	1.9798	0.0026	2.0116	2.0677	0.9866	4.1326	-0.0338	.	.	.	.	.	.	.	.
1	8	-2V	0.0680	1.9795	0.0041	2.0115	2.0691	0.9885	4.1343	-0.0312	.	.	.	.	.	.	.	.
		0V	0.0647	1.9795	-0.0003	2.0115	2.0650	0.9875	4.1301	-0.0329	.	.	.	.	.	.	.	.
		+2V	0.0671	1.9796	0.0024	2.0115	2.0675	0.9871	4.1326	-0.0325	.	.	.	.	.	.	.	.
1	9	-2V	0.0690	1.9793	0.0054	2.0113	2.0705	0.9859	4.1355	-0.0365	.	.	.	.	.	.	.	.
		0V	0.0646	1.9793	-0.0003	2.0113	2.0650	0.9847	4.1301	-0.0382	.	.	.	.	.	.	.	.
		+2V	0.0674	1.9793	0.0027	2.0113	2.0678	0.9844	4.1328	-0.0377	.	.	.	.	.	.	.	.
1	10	-2V	0.0701	1.9794	0.0040	2.0114	2.0691	0.9855	4.1341	-0.0372	.	.	.	.	.	.	.	.
		0V	0.0648	1.9794	-0.0002	2.0114	2.0650	0.9845	4.1301	-0.0388	.	.	.	.	.	.	.	.
		+2V	0.0672	1.9794	0.0026	2.0114	2.0677	0.9841	4.1326	-0.0384	.	.	.	.	.	.	.	.
1	11	-2V	0.0685	1.9796	0.0040	2.0116	2.0690	0.9856	4.1340	-0.0373	.	.	.	.	.	.	.	.
		0V	0.0647	1.9796	-0.0002	2.0116	2.0651	0.9845	4.1302	-0.0388
		+2V	0.0673	1.9796	0.0026	2.0116	2.0677	0.9841	4.1327	-0.0384

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3-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 35

781/11/80 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

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[...DCK=LEVEL...] [.....D.C.R.=...PULSE.....]										-P X-I-							
NO	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
1	12	-2V	0.0687	1.9792	0.0057	2.0114	2.0708	0.9855	4.1359	-0.0378	.	.	.	.	.	.	.
		0V	0.0646	1.9793	-0.0005	2.0113	2.0649	0.9843	4.1300	-0.0394	.	.	.	.	.	.	.
		+2V	0.0675	1.9792	0.0028	2.0113	2.0679	0.9839	4.1329	-0.0392	.	.	.	.	.	.	.
1	13	-2V	0.0713	1.9790	0.0069	2.0110	2.0719	0.9855	4.1371	-0.0370	.	.	.	.	.	.	.
		0V	0.0643	1.9790	-0.0006	2.0109	2.0647	0.9844	4.1300	-0.0388	.	.	.	.	.	.	.
		+2V	0.0676	1.9790	0.0029	2.0109	2.0679	0.9840	4.1330	-0.0383	.	.	.	.	.	.	.
1	14	-2V	0.0710	1.9795	0.0047	2.0115	2.0697	0.9870	4.1348	-0.0348	.	.	.	.	.	.	.
		0V	0.0650	1.9795	-0.0000	2.0114	2.0652	0.9859	4.1302	-0.0366	.	.	.	.	.	.	.
		+2V	0.0674	1.9796	0.0027	2.0114	2.0678	0.9874	4.1327	-0.0362	.	.	.	.	.	.	.
1	15	-2V	0.0695	1.9797	0.0049	2.0117	2.0699	0.9862	4.1350	-0.0362	.	.	.	.	.	.	.
		0V	0.0648	1.9797	-0.0001	2.0116	2.0652	0.9850	4.1303	-0.0380	.	.	.	.	.	.	.
		+2V	0.0675	1.9797	0.0029	2.0117	2.0679	0.9847	4.1328	-0.0375	.	.	.	.	.	.	.
1	16	-2V	0.0699	1.9796	0.0043	2.0116	2.0694	0.9865	4.1344	-0.0364	.	.	.	.	.	.	.
		0V	0.0648	1.9797	-0.0002	2.0116	2.0650	0.9854	4.1301	-0.0382	.	.	.	.	.	.	.
		+2V	0.0672	1.9797	0.0025	2.0116	2.0676	0.9849	4.1326	-0.0379	.	.	.	.	.	.	.
2	1	-2V	0.0687	1.9865	0.0047	2.0185	2.0699	0.9942	4.1349	-0.0269	.	.	.	.	.	.	*
		0V	0.0646	1.9864	-0.0003	2.0184	2.0650	0.9931	4.1301	-0.0284	.	.	.	.	.	.	*
		+2V	0.0673	1.9865	0.0026	2.0184	2.0677	0.9927	4.1327	-0.0280	.	.	.	.	.	.	*
2	2	-2V	0.0694	1.9866	0.0062	2.0186	2.0713	0.9946	4.1362	-0.0262	.	.	.	.	.	.	*
		0V	0.0649	1.9866	-0.0002	2.0186	2.0651	0.9935	4.1302	-0.0277	*
		+2V	0.0676	1.9867	0.0029	2.0186	2.0679	0.9931	4.1329	-0.0273	*

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 34

1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

		[...DCR=LEVEL...]		[.....D.C.R.=...PULSE.....]						-P A-F							
BAND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
2	3	-2V	0.0711	1.9861	0.0062	2.0181	2.0713	0.9932	4.1362	-0.0284	.	.	.	.	.	.	*
		0V	0.0648	1.9861	-0.0002	2.0180	2.0651	0.9920	4.1302	-0.0300	.	.	.	.	.	.	.
		+2V	0.0676	1.9861	0.0029	2.0180	2.0680	0.9917	4.1339	-0.0296	.	.	.	.	.	.	*
2	4	-2V	0.0711	1.9867	0.0024	2.0187	2.0675	0.9946	4.1326	-0.0263	.	.	.	.	.	.	*
		0V	0.0650	1.9868	-0.0002	2.0188	2.0650	0.9937	4.1301	-0.0277	.	.	.	.	.	.	*
		+2V	0.0669	1.9868	0.0022	2.0187	2.0673	0.9932	4.1323	-0.0274	.	.	.	.	.	.	*
2	5	-2V	0.0669	1.9868	0.0040	2.0188	2.0691	0.9939	4.1343	-0.0276	.	.	.	.	.	.	*
		0V	0.0645	1.9868	-0.0004	2.0186	2.0649	0.9928	4.1302	-0.0291	.	.	.	.	.	.	*
		+2V	0.0672	1.9869	0.0025	2.0187	2.0676	0.9925	4.1328	-0.0286	.	.	.	.	.	.	*
2	6	-2V	0.0686	1.9861	0.0078	2.0182	2.0728	0.9947	4.1379	-0.0254	.	.	.	.	.	.	*
		0V	0.0635	1.9861	-0.0009	2.0180	2.0645	0.9935	4.1297	-0.0272	.	.	.	.	.	.	*
		+2V	0.0671	1.9861	0.0025	2.0181	2.0676	0.9937	4.1327	-0.0267	.	.	.	.	.	.	*
2	7	-2V	0.0734	1.9862	0.0078	2.0184	2.0779	0.9944	4.1381	-0.0247	.	.	.	.	.	.	*
		0V	0.0638	1.9862	-0.0010	2.0183	2.0643	0.9931	4.1297	-0.0285	.	.	.	.	.	.	*
		+2V	0.0675	1.9862	0.0025	2.0183	2.0675	0.9928	4.1327	-0.0279	.	.	.	.	.	.	*
2	8	-2V	0.0739	1.9866	0.0039	2.0190	2.0687	0.9947	4.1340	-0.0270	.	.	.	.	.	.	*
		0V	0.0641	1.9866	-0.0015	2.0188	2.0637	0.9933	4.1291	-0.0285	.	.	.	.	.	.	*
		+2V	0.0664	1.9866	0.0015	2.0186	2.0663	0.9928	4.1312	-0.0280	.	.	.	.	.	.	*
2	9	-2V	0.0684	1.9861	0.0036	2.0180	2.0680	0.9959	4.1326	-0.0244	.	.	.	.	*	.	*
		0V	0.0634	1.9861	-0.0015	2.0180	2.0634	0.9947	4.1280	-0.0251	.	.	.	.	.	.	*
		+2V	0.0660	1.9862	0.0014	2.0180	2.0659	0.9943	4.1304	-0.0247	.	.	.	.	.	.	*

HS-236 THEMATIC MAPPER MIX UNIT TEST MODFL.. FLT. S/N 3 PAGE 37
 1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP..
 INPUT BUFFER TEST (READINGS)



REV 30 81

[...DCR=LEVEL...] [.....D.C.R.=...PULSE]										.P X-F							
BAND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
2	10	-2V	0.0689	1.9864	0.0054	2.0184	2.0704	0.9941	4.1353	-0.0271	.	.	.	.	.	.	*
		0V	0.0649	1.9865	-0.0001	2.0183	2.0652	0.9930	4.1302	-0.0287	.	.	.	.	.	.	*
		+2V	0.0675	1.9864	0.0028	2.0183	2.0678	0.9926	4.1328	-0.0282	.	.	.	.	.	.	*
2	11	-2V	0.0700	1.9863	0.0051	2.0182	2.0701	0.9934	4.1351	-0.0281	.	.	.	.	.	.	*
		0V	0.0648	1.9863	-0.0001	2.0182	2.0652	0.9923	4.1302	-0.0297	.	.	.	.	.	.	*
		+2V	0.0674	1.9863	0.0028	2.0182	2.0678	0.9920	4.1327	-0.0292	.	.	.	.	.	.	*
2	12	-2V	0.0698	1.9862	0.0051	2.0183	2.0701	0.9931	4.1353	-0.0291	.	.	.	.	.	.	*
		0V	0.0655	1.9862	-0.0002	2.0182	2.0651	0.9920	4.1303	-0.0307	.	.	.	.	.	.	.
		+2V	0.0677	1.9863	0.0026	2.0183	2.0677	0.9916	4.1327	-0.0302	.	.	.	.	.	.	.
2	13	-2V	0.0699	1.9866	0.0051	2.0186	2.0701	0.9956	4.1352	-0.0245	.	.	.	.	.	*	.
		0V	0.0651	1.9867	-0.0002	2.0185	2.0651	0.9945	4.1303	-0.0262	.	.	.	.	.	.	.
		+2V	0.0675	1.9867	0.0025	2.0186	2.0676	0.9941	4.1327	-0.0257	.	.	.	.	.	.	*
2	14	-2V	0.0699	1.9865	0.0039	2.0183	2.0688	0.9972	4.1338	-0.0211	.	.	.	.	.	*	.
		0V	0.0650	1.9866	-0.0000	2.0183	2.0652	0.9961	4.1302	-0.0228	.	.	.	.	.	*	.
		+2V	0.0672	1.9866	0.0025	2.0183	2.0676	0.9956	4.1325	-0.0224	.	.	.	.	.	*	.
2	15	-2V	0.0688	1.9863	0.0043	2.0182	2.0694	0.9964	4.1344	-0.0223	.	.	.	.	.	*	*
		0V	0.0649	1.9863	-0.0000	2.0181	2.0652	0.9954	4.1302	-0.0239	.	.	.	.	.	*	*
		+2V	0.0673	1.9863	0.0026	2.0181	2.0677	0.9950	4.1326	-0.0235	.	.	.	.	.	.	*
2	16	-2V	0.0688	1.9864	0.0054	2.0182	2.0704	0.9985	4.1354	-0.0188	.	.	.	.	.	*	*
		0V	0.0650	1.9864	-0.0001	2.0182	2.0652	0.9974	4.1302	-0.0206	*	*
		+2V	0.0675	1.9864	0.0028	2.0182	2.0679	0.9970	4.1329	-0.0203	*	*

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NO 30 81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 38

1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

		[...DCR-LEVEL...]		[.....D.C.R.=...PULSE.....]						-P X-F							
BAND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
3	1	-2V	0.0700	1.9842	0.0056	2.0162	2.0707	0.9907	4.1356	-0.0318	.	.	.	.	.	.	.
		0V	0.0647	1.9842	-0.0002	2.0161	2.0651	0.9895	4.1301	-0.0336	.	.	.	.	.	.	.
		+2V	0.0675	1.9842	0.0029	2.0161	2.0679	0.9892	4.1329	-0.0331	.	.	.	.	.	.	.
3	2	-2V	0.0702	1.9837	0.0059	2.0157	2.0708	0.9900	4.1359	-0.0326	.	.	.	.	.	.	.
		0V	0.0643	1.9838	-0.0008	2.0157	2.0646	0.9889	4.1299	-0.0343	.	.	.	.	.	.	.
		+2V	0.0675	1.9838	0.0027	2.0157	2.0678	0.9885	4.1329	-0.0339	.	.	.	.	.	.	.
3	3	-2V	0.0708	1.9840	0.0059	2.0159	2.0709	0.9903	4.1360	-0.0321	.	.	.	.	.	.	.
		0V	0.0643	1.9840	-0.0007	2.0158	2.0647	0.9892	4.1300	-0.0338	.	.	.	.	.	.	.
		+2V	0.0675	1.9840	0.0028	2.0159	2.0679	0.9888	4.1330	-0.0372	.	.	.	.	.	.	.
3	4	-2V	0.0708	1.9838	0.0025	2.0159	2.0675	0.9907	4.1327	-0.0315	.	.	.	.	.	.	.
		0V	0.0642	1.9839	-0.0009	2.0159	2.0645	0.9897	4.1298	-0.0331	.	.	.	.	.	.	.
		+2V	0.0667	1.9839	0.0020	2.0159	2.0671	0.9893	4.1327	-0.0326	.	.	.	.	.	.	.
3	5	-2V	0.0672	1.9842	0.0031	2.0163	2.0683	0.9895	4.1335	-0.0341	.	.	.	.	.	.	.
		0V	0.0640	1.9843	-0.0010	2.0163	2.0644	0.9885	4.1299	-0.0357	.	.	.	.	.	.	.
		+2V	0.0667	1.9843	0.0020	2.0163	2.0671	0.9881	4.1323	-0.0352	.	.	.	.	.	.	.
3	6	-2V	0.0675	1.9840	0.0037	2.0159	2.0688	0.9908	4.1338	-0.0313	.	.	.	.	.	.	.
		0V	0.0648	1.9839	-0.0001	2.0159	2.0651	0.9897	4.1301	-0.0329	.	.	.	.	.	.	.
		+2V	0.0673	1.9840	0.0027	2.0159	2.0677	0.9893	4.1326	-0.0326	.	.	.	.	.	.	.
3	7	-2V	0.0686	1.9836	0.0042	2.0156	2.0691	0.9893	4.1341	-0.0335	.	.	.	.	.	.	.
		0V	0.0647	1.9836	-0.0001	2.0155	2.0651	0.9883	4.1302	-0.0351
		+2V	0.0673	1.9837	0.0027	2.0156	2.0678	0.9879	4.1327	-0.0347

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3
1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

PAGE 39

INPUT BUFFER TEST (READINGS)

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		[...DCR=LEVEL...]		[.....D.C.R.=...PULSE.....]													
BAND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	H
3	8	-2V	0.0685	1.9840	0.0047	2.0160	2.0697	0.9913	4.1346	-0.0302	.	.	.	.	.	.	.
		0V	0.0649	1.9841	-0.0002	2.0160	2.0651	0.9902	4.1301	-0.0318	.	.	.	.	.	.	.
		+2V	0.0674	1.9840	0.0027	2.0160	2.0678	0.9898	4.1328	-0.0314	.	.	.	.	.	.	.
3	9	-2V	0.0694	1.9837	0.0051	2.0156	2.0702	0.9909	4.1352	-0.0307	.	.	.	.	.	.	.
		0V	0.0647	1.9837	-0.0002	2.0155	2.0650	0.9898	4.1301	-0.0323	.	.	.	.	.	.	.
		+2V	0.0675	1.9837	0.0028	2.0155	2.0679	0.9895	4.1329	-0.0319	.	.	.	.	.	.	.
3	10	-2V	0.0697	1.9838	0.0041	2.0157	2.0692	0.9928	4.1344	-0.0278	.	.	.	.	.	.	*
		0V	0.0640	1.9838	-0.0011	2.0158	2.0642	0.9916	4.1297	-0.0296	.	.	.	.	.	.	*
		+2V	0.0670	1.9839	0.0022	2.0158	2.0673	0.9912	4.1325	-0.0292	.	.	.	.	.	.	*
3	11	-2V	0.0691	1.9840	0.0047	2.0161	2.0696	0.9917	4.1350	-0.0295	.	.	.	.	.	.	*
		0V	0.0638	1.9841	-0.0012	2.0160	2.0642	0.9907	4.1297	-0.0311	.	.	.	.	.	.	.
		+2V	0.0668	1.9841	0.0022	2.0160	2.0672	0.9903	4.1324	-0.0305	.	.	.	.	.	.	.
3	12	-2V	0.0691	1.9840	0.0052	2.0161	2.0701	0.9928	4.1357	-0.0275	.	.	.	.	.	.	*
		0V	0.0647	1.9841	-0.0004	2.0161	2.0649	0.9917	4.1300	-0.0292	.	.	.	.	.	.	*
		+2V	0.0677	1.9841	0.0029	2.0160	2.0680	0.9913	4.1331	-0.0288	.	.	.	.	.	.	*
3	13	-2V	0.0695	1.9842	0.0055	2.0163	2.0706	0.9905	4.1358	-0.0319	.	.	.	.	.	.	.
		0V	0.0645	1.9842	-0.0004	2.0162	2.0649	0.9894	4.1300	-0.0334	.	.	.	.	.	.	.
		+2V	0.0676	1.9842	0.0030	2.0162	2.0681	0.9890	4.1331	-0.0330	.	.	.	.	.	.	.
3	14	-2V	0.0700	1.9835	0.0041	2.0155	2.0691	0.9899	4.1341	-0.0326	.	.	.	.	.	.	.
		0V	0.0650	1.9836	-0.0000	2.0155	2.0652	0.9888	4.1302	-0.0343
		+2V	0.0675	1.9836	0.0028	2.0155	2.0678	0.9885	4.1327	-0.0339



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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 40

1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

			[...DCR=LEVEL...]		[.....D.C.R.=...PULSE .....						. =P X=F							
BAND	SENSOR		INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
3	15	-2V	0.0688	1.9840	0.0043	2.0161	2.0693	0.9913	4.1343	-0.0309	.	.	.	.	.	.	.	.
		0V	0.0648	1.9841	-0.0000	2.0161	2.0652	0.9901	4.1302	-0.0327	.	.	.	.	.	.	.	.
		+2V	0.0675	1.9841	0.0029	2.0161	2.0679	0.9897	4.1328	-0.0323	.	.	.	.	.	.	.	.
3	16	-2V	0.0688	1.9838	0.0034	2.0158	2.0686	0.9902	4.1336	-0.0331	.	.	.	.	.	.	.	.
		0V	0.0650	1.9838	-0.0001	2.0158	2.0651	0.9991	4.1301	-0.0348	.	.	.	.	.	.	.	.
		+2V	0.0673	1.9839	0.0026	2.0158	2.0676	0.9886	4.1326	-0.0345	.	.	.	.	.	.	.	.
4	1	-2V	0.0686	1.9849	0.0043	2.0168	2.0690	0.9912	4.1340	-0.0313	.	.	.	.	.	.	.	.
		0V	0.0647	1.9850	-0.0002	2.0168	2.0651	0.9901	4.1301	-0.0329	.	.	.	.	.	.	.	.
		+2V	0.0670	1.9850	0.0023	2.0168	2.0674	0.9897	4.1324	-0.0325	.	.	.	.	.	.	.	.
4	2	-2V	0.0685	1.9848	0.0046	2.0167	2.0696	0.9929	4.1346	-0.0287	.	.	.	.	.	.	.	.
		0V	0.0649	1.9849	-0.0002	2.0167	2.0651	0.9918	4.1302	-0.0300	.	.	.	.	.	.	.	.
		+2V	0.0676	1.9849	0.0029	2.0167	2.0679	0.9914	4.1329	-0.0296	.	.	.	.	.	.	.	.
4	3	-2V	0.0690	1.9852	0.0043	2.0172	2.0693	0.9912	4.1343	-0.0311	.	.	.	.	.	.	.	.
		0V	0.0648	1.9852	-0.0001	2.0171	2.0651	0.9903	4.1302	-0.0326	.	.	.	.	.	.	.	.
		+2V	0.0675	1.9853	0.0029	2.0171	2.0679	0.9899	4.1329	-0.0327	.	.	.	.	.	.	.	.
4	4	-2V	0.0689	1.9851	0.0015	2.0170	2.0666	0.9912	4.1317	-0.0317	.	.	.	.	.	.	.	.
		0V	0.0649	1.9851	-0.0003	2.0171	2.0650	0.9902	4.1301	-0.0332	.	.	.	.	.	.	.	.
		+2V	0.0669	1.9851	0.0021	2.0171	2.0672	0.9898	4.1322	-0.0329	.	.	.	.	.	.	.	.
4	5	-2V	0.0662	1.9856	0.0014	2.0175	2.0666	0.9917	4.1317	-0.0309	.	.	.	.	.	.	.	.
		0V	0.0646	1.9856	-0.0003	2.0176	2.0650	0.9907	4.1301	-0.0324
		+2V	0.0667	1.9856	0.0020	2.0176	2.0671	0.9904	4.1322	-0.0320

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 41

1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

[...DCK-1 FUEL...] [.....D.C.R.=...PULSE]										..P X-F							
BAND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
4	6	-2V	0.0663	1.9838	0.0038	2.0175	2.0679	0.9910	4.1332	-0.0326	.	.	.	.	.	.	.
		0V	0.0643	1.9854	-0.0007	2.0175	2.0646	0.9900	4.1299	-0.0342	.	.	.	.	.	.	.
		+2V	0.0671	1.9855	0.0024	2.0174	2.0674	0.9895	4.1325	-0.0338	.	.	.	.	.	.	.
4	7	-2V	0.0675	1.9851	0.0033	2.0171	2.0684	0.9914	4.1336	-0.0313	.	.	.	.	.	.	.
		0V	0.0641	1.9851	-0.0009	2.0172	2.0645	0.9904	4.1299	-0.0330	.	.	.	.	.	.	.
		+2V	0.0672	1.9851	0.0026	2.0172	2.0676	0.9900	4.1327	-0.0325	.	.	.	.	.	.	.
4	8	-2V	0.0677	1.9852	0.0033	2.0173	2.0683	0.9916	4.1334	-0.0313	.	.	.	.	.	.	.
		0V	0.0653	1.9852	-0.0003	2.0173	2.0650	0.9905	4.1302	-0.0331	.	.	.	.	.	.	.
		+2V	0.0676	1.9852	0.0025	2.0172	2.0676	0.9901	4.1327	-0.0326	.	.	.	.	.	.	.
4	9	-2V	0.0680	1.9850	0.0035	2.0170	2.0686	0.9916	4.1337	-0.0304	.	.	.	.	.	.	.
		0V	0.0650	1.9850	-0.0003	2.0170	2.0650	0.9906	4.1302	-0.0319	.	.	.	.	.	.	.
		+2V	0.0675	1.9850	0.0026	2.0170	2.0676	0.9902	4.1327	-0.0315	.	.	.	.	.	.	.
4	10	-2V	0.0683	1.9851	0.0024	2.0169	2.0675	0.9933	4.1325	-0.0276	.	.	.	.	.	.	*
		0V	0.0650	1.9851	-0.0001	2.0169	2.0652	0.9923	4.1302	-0.0293	.	.	.	.	.	.	*
		+2V	0.0672	1.9851	0.0025	2.0170	2.0675	0.9918	4.1325	-0.0289	.	.	.	.	.	.	*
4	11	-2V	0.0671	1.9847	0.0028	2.0166	2.0678	0.9921	4.1328	-0.0293	.	.	.	.	.	.	*
		0V	0.0648	1.9848	0.0000	2.0165	2.0652	0.9910	4.1302	-0.0309	.	.	.	.	.	.	.
		+2V	0.0673	1.9848	0.0026	2.0166	2.0677	0.9907	4.1326	-0.0304	.	.	.	.	.	.	.
4	12	-2V	0.0677	1.9850	0.0035	2.0170	2.0685	0.9923	4.1336	-0.0293	.	.	.	.	.	.	*
		0V	0.0652	1.9850	-0.0003	2.0170	2.0650	0.9913	4.1302	-0.0309
		+2V	0.0677	1.9850	0.0026	2.0170	2.0677	0.9909	4.1327	-0.0304

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 42

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INPUT BUFFER TEST (READINGS)

		[...DCR=LEVFL...]		[.....D.C.R.=...PULSE.....]						.P *F							
BAND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
4	13	-2V	0.0685	1.9850	0.0039	2.0170	2.0689	0.9920	4.1341	-0.0298	.	.	.	.	.	.	*
		0V	0.0650	1.9850	-0.0003	2.0169	2.0650	0.9909	4.1302	-0.0314	.	.	.	.	.	.	.
		+2V	0.0675	1.9850	0.0026	2.0169	2.0677	0.9906	4.1327	-0.0309	.	.	.	.	.	.	.
4	14	-2V	0.0680	1.9851	0.0023	2.0169	2.0674	0.9936	4.1324	-0.0270	.	.	.	.	.	.	*
		0V	0.0650	1.9851	-0.0000	2.0169	2.0652	0.9925	4.1302	-0.0287	.	.	.	.	.	.	*
		+2V	0.0673	1.9852	0.0025	2.0170	2.0676	0.9922	4.1325	-0.0303	.	.	.	.	.	.	*
4	15	-2V	0.0669	1.9848	0.0022	2.0167	2.0673	0.9933	4.1323	-0.0265	.	.	.	.	.	.	*
		0V	0.0648	1.9849	-0.0000	2.0167	2.0652	0.9923	4.1302	-0.0280	.	.	.	.	.	.	*
		+2V	0.0672	1.9848	0.0026	2.0167	2.0676	0.9920	4.1325	-0.0275	.	.	.	.	.	.	*
4	16	-2V	0.0670	1.9850	0.0022	2.0169	2.0673	0.9925	4.1324	-0.0290	.	.	.	.	.	.	*
		0V	0.0649	1.9850	-0.0002	2.0169	2.0650	0.9915	4.1301	-0.0305	.	.	.	.	.	.	.
		+2V	0.0673	1.9850	0.0025	2.0169	2.0675	0.9911	4.1325	-0.0302	.	.	.	.	.	.	.
5	1	-2V	0.0667	1.9804	0.0021	2.0122	2.0672	0.9901	4.1323	-0.0289	.	.	.	.	.	.	*
		0V	0.0646	1.9804	-0.0003	2.0122	2.0649	0.9889	4.1300	-0.0307	.	.	.	.	.	.	.
		+2V	0.0670	1.9804	0.0024	2.0123	2.0674	0.9883	4.1324	-0.0308	.	.	.	.	.	.	.
5	2	-2V	0.0670	1.9803	0.0012	2.0126	2.0663	0.9893	4.1317	-0.0308	.	.	.	.	.	.	.
		0V	0.0638	1.9804	-0.0013	2.0127	2.0641	0.9883	4.1297	-0.0324	.	.	.	.	.	.	.
		+2V	0.0666	1.9804	0.0018	2.0126	2.0669	0.9879	4.1321	-0.0318	.	.	.	.	.	.	.
5	3	-2V	0.0648	1.9803	-0.0000	2.0124	2.0652	0.9850	4.1307	-0.0382	.	.	.	.	.	.	.
		0V	0.0636	1.9803	-0.0014	2.0125	2.0640	0.9843	4.1297	-0.0394
		+2V	0.0659	1.9803	0.0012	2.0124	2.0663	0.9840	4.1315	-0.0387

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 49
1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

		[...DCR=LEVEL...]		[.....D.C.R.=...PULSE.....]						X-F							
AND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
5	4	-2V	0.0657	1.9806	-0.0001	2.0124	2.0651	0.9932	4.1305	-0.0227	.	.	.	.	.	.	K
		0V	0.0639	1.9806	-0.0014	2.0126	2.0640	0.9924	4.1295	-0.0241	.	.	.	.	.	.	K
		+2V	0.0659	1.9806	0.0010	2.0125	2.0662	0.9918	4.1314	-0.0207	.	.	.	.	.	.	K
5	5	-2V	0.0647	1.9808	0.0001	2.0126	2.0673	0.9892	4.1306	-0.0317	.	.	.	.	.	.	.
		0V	0.0636	1.9808	-0.0014	2.0127	2.0670	0.9883	4.1290	-0.0328	.	.	.	.	.	.	.
		+2V	0.0658	1.9808	0.0011	2.0127	2.0667	0.9878	4.1315	-0.0324	.	.	.	.	.	.	.
5	6	-2V	0.0650	1.9803	0.0012	2.0128	2.0663	0.9883	4.1316	-0.0332	.	.	.	.	.	.	.
		0V	0.0641	1.9803	-0.0009	2.0129	2.0644	0.9874	4.1298	-0.0348	.	.	.	.	.	.	.
		+2V	0.0668	1.9803	0.0021	2.0129	2.0671	0.9869	4.1322	-0.0343	.	.	.	.	.	.	.
5	7	-2V	0.0659	1.9805	0.0011	2.0125	2.0662	0.9869	4.1316	-0.0358	.	.	.	.	.	.	.
		0V	0.0639	1.9805	-0.0011	2.0126	2.0643	0.9860	4.1298	-0.0374	.	.	.	.	.	.	.
		+2V	0.0666	1.9805	0.0019	2.0125	2.0670	0.9855	4.1321	-0.0368	.	.	.	.	.	.	.
5	8	-2V	0.0660	1.9801	0.0010	2.0120	2.0662	0.9887	4.1314	-0.0317	.	.	.	.	.	.	.
		0V	0.0642	1.9801	-0.0010	2.0121	2.0643	0.9878	4.1296	-0.0333	.	.	.	.	.	.	.
		+2V	0.0666	1.9801	0.0018	2.0121	2.0669	0.9873	4.1319	-0.0329	.	.	.	.	.	.	.
5	9	-2V	0.0657	1.9801	0.0002	2.0120	2.0655	0.9861	4.1307	-0.0370	.	.	.	.	.	.	.
		0V	0.0638	1.9802	-0.0011	2.0121	2.0642	0.9851	4.1296	-0.0386	.	.	.	.	.	.	.
		+2V	0.0660	1.9801	0.0013	2.0120	2.0664	0.9846	4.1315	-0.0381	.	.	.	.	.	.	.
5	10	-2V	0.0660	1.9800	0.0015	2.0119	2.0666	0.9857	4.1316	-0.0373	.	.	.	.	.	.	.
		0V	0.0649	1.9801	-0.0001	2.0120	2.0651	0.9848	4.1301	-0.0388
		+2V	0.0670	1.9800	0.0022	2.0120	2.0673	0.9844	4.1322	-0.0384

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 44

1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

		[...DCR=LEVFL...] [.....D.C.R.=...PUI SE]										. =P X=F							
BAND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP			1	2	3	4	5	6	7	8
5	11	-2V	0.0661	1.9803	0.0013	2.0121	2.0665	0.9881	4.1315	-0.0328		.	.	.	.	.	.	.	.
		0V	0.0647	1.9803	-0.0001	2.0121	2.0651	0.9871	4.1301	-0.0344		.	.	.	.	.	.	.	.
		+2V	0.0668	1.9804	0.0021	2.0121	2.0672	0.9867	4.1322	-0.0340		.	.	.	.	.	.	.	.
5	12	-2V	0.0664	1.9805	0.0014	2.0125	2.0665	0.9869	4.1317	-0.0357		.	.	.	.	.	.	.	.
		0V	0.0648	1.9806	-0.0003	2.0125	2.0649	0.9859	4.1300	-0.0372		.	.	.	.	.	.	.	.
		+2V	0.0669	1.9806	0.0021	2.0126	2.0672	0.9855	4.1322	-0.0369		.	.	.	.	.	.	.	.
5	13	-2V	0.0660	1.9800	0.0013	2.0120	2.0665	0.9861	4.1316	-0.0367		.	.	.	.	.	.	.	.
		0V	0.0645	1.9801	-0.0004	2.0121	2.0649	0.9871	4.1300	-0.0382		.	.	.	.	.	.	.	.
		+2V	0.0667	1.9800	0.0020	2.0121	2.0671	0.9847	4.1322	-0.0378		.	.	.	.	.	.	.	.
5	14	-2V	0.0663	1.9799	0.0013	2.0118	2.0665	0.9867	4.1315	-0.0353		.	.	.	.	.	.	.	.
		0V	0.0649	1.9799	-0.0001	2.0118	2.0651	0.9857	4.1302	-0.0368		.	.	.	.	.	.	.	.
		+2V	0.0670	1.9799	0.0022	2.0118	2.0673	0.9853	4.1322	-0.0364		.	.	.	.	.	.	.	.
5	15	-2V	0.0659	1.9803	0.0011	2.0122	2.0663	0.9871	4.1313	-0.0346		.	.	.	.	.	.	.	.
		0V	0.0648	1.9803	-0.0001	2.0122	2.0651	0.9862	4.1302	-0.0361		.	.	.	.	.	.	.	.
		+2V	0.0668	1.9804	0.0021	2.0123	2.0672	0.9858	4.1321	-0.0356		.	.	.	.	.	.	.	.
5	16	-2V	0.0662	1.9807	0.0009	2.0127	2.0661	0.9866	4.1312	-0.0361		.	.	.	.	.	.	.	.
		0V	0.0649	1.9807	-0.0001	2.0127	2.0651	0.9856	4.1301	-0.0375		.	.	.	.	.	.	.	.
		+2V	0.0667	1.9807	0.0019	2.0127	2.0670	0.9853	4.1320	-0.0370		.	.	.	.	.	.	.	.
6	1	-2V	0.0657	1.9850	0.0009	2.0170	2.0661	0.9922	4.1312	-0.0295		.	.	.	.	.	.	.	.
		0V	0.0646	1.9850	-0.0003	2.0170	2.0650	0.9912	4.1300	-0.0311	
		+2V	0.0666	1.9846	0.0019	2.0167	2.0670	0.9905	4.1320	-0.0310	

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 40
1981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

		[...DCK-I FVFL...] [.....D.C.R.=...PUI SF]										..F ..F							
AND	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8		
6	2	-2V	0.0658	1.9850	0.0009	2.0170	2.0661	0.9922	4.1312	-0.0294	.	.	.	.	.	.	*
		0V	0.0647	1.9851	-0.0003	2.0171	2.0649	0.9912	4.1301	-0.0309	.	.	.	.	.	.	.
		+2V	0.0667	1.9847	0.0019	2.0169	2.0670	0.9906	4.1320	-0.0307	.	.	.	.	.	.	.
6	3	-2V	0.0657	1.9849	0.0010	2.0169	2.0662	0.9913	4.1313	-0.0312	.	.	.	.	.	.	.
		0V	0.0646	1.9849	-0.0003	2.0169	2.0650	0.9903	4.1301	-0.0328	.	.	.	.	.	.	.
		+2V	0.0666	1.9846	0.0019	2.0167	2.0670	0.9897	4.1320	-0.0326	.	.	.	.	.	.	.
6	4	-2V	0.0658	1.9847	0.0007	2.0167	2.0659	0.9920	4.1310	-0.0292	.	.	.	.	.	.	*
		0V	0.0649	1.9848	-0.0002	2.0168	2.0650	0.9911	4.1301	-0.0305	.	.	.	.	.	.	.
		+2V	0.0667	1.9844	0.0018	2.0166	2.0669	0.9906	4.1319	-0.0303	.	.	.	.	.	.	.
7	1	-2V	0.0655	1.9838	0.0007	2.0155	2.0659	0.9920	4.1310	-0.0287	.	.	.	.	.	.	*
		0V	0.0646	1.9838	-0.0002	2.0156	2.0650	0.9909	4.1300	-0.0303	.	.	.	.	.	.	.
		+2V	0.0665	1.9838	0.0018	2.0156	2.0669	0.9905	4.1318	-0.0300	.	.	.	.	.	.	.
7	2	-2V	0.0656	1.9833	0.0007	2.0152	2.0659	0.9909	4.1311	-0.0304	.	.	.	.	.	.	.
		0V	0.0641	1.9833	-0.0010	2.0152	2.0643	0.9899	4.1297	-0.0320	.	.	.	.	.	.	.
		+2V	0.0664	1.9833	0.0016	2.0153	2.0667	0.9895	4.1318	-0.0315	.	.	.	.	.	.	.
7	3	-2V	0.0656	1.9839	0.0009	2.0157	2.0660	0.9915	4.1313	-0.0297	.	.	.	.	.	.	*
		0V	0.0641	1.9839	-0.0009	2.0157	2.0645	0.9904	4.1299	-0.0314	.	.	.	.	.	.	.
		+2V	0.0665	1.9839	0.0018	2.0158	2.0669	0.9901	4.1320	-0.0308	.	.	.	.	.	.	.
7	4	-2V	0.0656	1.9835	0.0006	2.0153	2.0658	0.9905	4.1308	-0.0311	.	.	.	.	.	.	.
		0V	0.0643	1.9835	-0.0007	2.0155	2.0646	0.9896	4.1297	-0.0326		
		+2V	0.0663	1.9835	0.0016	2.0154	2.0667	0.9892	4.1317	-0.0322		

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NO 30 81

S-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 46

981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

		[...DCR-LEVEL...]		[.....D.C.R.=...PULSE.....]						-P A-F							
NO	SENSOR	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
7	5	-2V	0.0653	1.9838	0.0006	2.0156	2.0658	0.9902	4.1308	-0.0317	.	.	.	.	.	.	.
		0V	0.0641	1.9838	-0.0007	2.0156	2.0646	0.9893	4.1296	-0.0332	.	.	.	.	.	.	.
		+2V	0.0662	1.9839	0.0016	2.0156	2.0667	0.9889	4.1316	-0.0327	.	.	.	.	.	.	.
7	6	-2V	0.0656	1.9833	0.0010	2.0152	2.0661	0.9905	4.1313	-0.0310	.	.	.	.	.	.	.
		0V	0.0644	1.9833	-0.0006	2.0153	2.0647	0.9895	4.1299	-0.0325	.	.	.	.	.	.	.
		+2V	0.0666	1.9833	0.0019	2.0153	2.0669	0.9892	4.1320	-0.0320	.	.	.	.	.	.	.
7	7	-2V	0.0656	1.9836	0.0008	2.0154	2.0660	0.9906	4.1312	-0.0309	.	.	.	.	.	.	.
		0V	0.0642	1.9836	-0.0007	2.0155	2.0646	0.9897	4.1299	-0.0324	.	.	.	.	.	.	.
		+2V	0.0664	1.9836	0.0018	2.0155	2.0668	0.9893	4.1319	-0.0319	.	.	.	.	.	.	.
7	8	-2V	0.0657	1.9832	0.0010	2.0152	2.0662	0.9901	4.1313	-0.0316	.	.	.	.	.	.	.
		0V	0.0649	1.9832	-0.0002	2.0152	2.0651	0.9892	4.1301	-0.0330	.	.	.	.	.	.	.
		+2V	0.0667	1.9832	0.0019	2.0152	2.0670	0.9888	4.1320	-0.0327	.	.	.	.	.	.	.
7	9	-2V	0.0657	1.9835	0.0010	2.0153	2.0661	0.9913	4.1312	-0.0293	.	.	.	.	.	.	*
		0V	0.0647	1.9835	-0.0002	2.0153	2.0650	0.9903	4.1301	-0.0308	.	.	.	.	.	.	.
		+2V	0.0665	1.9835	0.0018	2.0154	2.0669	0.9899	4.1319	-0.0304	.	.	.	.	.	.	.
7	10	-2V	0.0657	1.9832	0.0010	2.0150	2.0662	0.9907	4.1312	-0.0316	.	.	.	.	.	.	.
		0V	0.0648	1.9833	-0.0001	2.0151	2.0651	0.9892	4.1301	-0.0331	.	.	.	.	.	.	.
		+2V	0.0666	1.9833	0.0019	2.0151	2.0670	0.9888	4.1319	-0.0327	.	.	.	.	.	.	.
7	11	-2V	0.0660	1.9834	0.0013	2.0152	2.0664	0.9918	4.1314	-0.0286	.	.	.	.	.	.	*
		0V	0.0647	1.9835	-0.0001	2.0153	2.0651	0.9908	4.1302	-0.0302
		+2V	0.0668	1.9835	0.0021	2.0153	2.0672	0.9904	4.1321	-0.0297	*



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S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 47

981/11/30 09:27:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

[...DCK=LEVEL...] [.....D.C.R.=...PU] SE .....										. =P X -I-								
ND	SIN	SOR	INPU	A/D TP	INPUT	A/D TP	INPUT	A/D TP	INPUT	A/D TP	1	2	3	4	5	6	7	8
7	12	-2V	0.0659	1.9839	0.0008	2.0158	2.0660	0.9902	4.1311	-0.0320	.	.	.	.	.	.	.	.
		0V	0.0647	1.9838	-0.0004	2.0159	2.0649	0.9893	4.1300	-0.0333	.	.	.	.	.	.	.	.
		+2V	0.0660	1.9839	0.0017	2.0159	2.0668	0.9889	4.1319	-0.0329	.	.	.	.	.	.	.	.
7	13	-2V	0.0659	1.9832	0.0011	2.0153	2.0663	0.9939	4.1315	-0.0259	.	.	.	.	.	.	.	X
		0V	0.0644	1.9832	-0.0004	2.0150	2.0648	0.9926	4.1300	-0.0280	.	.	.	.	.	.	.	X
		+2V	0.0663	1.9832	0.0016	2.0150	2.0667	0.9925	4.1318	-0.0278	.	.	.	.	.	.	.	X
7	14	-2V	0.0657	1.9833	0.0006	2.0151	2.0658	0.9941	4.1310	-0.0239	.	.	.	.	.	.	.	X
		0V	0.0642	1.9834	-0.0009	2.0152	2.0645	0.9932	4.1298	-0.0255	.	.	.	.	.	.	.	X
		+2V	0.0663	1.9833	0.0016	2.0151	2.0667	0.9927	4.1317	-0.0251	.	.	.	.	.	.	.	X
7	15	-2V	0.0654	1.9838	0.0006	2.0155	2.0658	0.9955	4.1311	-0.0214	.	.	.	.	.	X	.	X
		0V	0.0639	1.9837	-0.0010	2.0156	2.0643	0.9946	4.1297	-0.0230	.	.	.	.	.	.	.	X
		+2V	0.0662	1.9838	0.0016	2.0155	2.0667	0.9941	4.1318	-0.0225	.	.	.	.	.	.	.	X
7	16	-2V	0.0656	1.9835	0.0009	2.0154	2.0661	0.9930	4.1312	-0.0261	.	.	.	.	.	.	.	X
		0V	0.0649	1.9835	-0.0002	2.0154	2.0650	0.9921	4.1300	-0.0275	X
		+2V	0.0667	1.9836	0.0019	2.0154	2.0670	0.9917	4.1320	-0.0272	X

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REV 30 81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 48

1981/11/30 09:22:57 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

INPUT BUFFER TEST (READINGS)

[...DCR=LEVEL...] [.....D.C.R.=...PUL SF]

.=P X=F

RAND SENSOR INPUT A/D TP INPUT A/D TP INPUT A/D TP INPUT A/D TP 1 2 3 4 5 6 7 8

3.5.3.1-2 EXTERNAL DC RESTORE

A/D REFERENCE VOLTAGES

A/D	1	2	3	4	5	6	7	
LOW	1.9680	1.9680	1.9680	1.9680	1.9680	1.9650	1.9680	
DVM	1.9857	1.9926	1.9902	1.9912	1.9866	1.9847	1.9897	
HIGH	1.9980	1.9980	1.9980	1.9980	1.9980	1.9950	1.9980	
	0.0550	1.9650	-0.0150	1.9700	2.0550	1.9650	4.1250	1.9650
	TO	TO	TO	TO	TO	TO	TO	TO
	0.0750	1.9950	0.0150	1.9900	2.0850	1.9950	4.1550	1.9950
-2V	0.0669	1.9798	0.0024	1.9796	2.0674	1.9780	4.1322	1.9763
(J	0.0647	1.9799	-0.0001	1.9797	2.0651	1.9780	4.1300	1.9763
+2V	0.0668	1.9799	0.0022	1.9797	2.0673	1.9781	4.1322	1.9763

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TEST PASSED

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NOV 30 '81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 49
1981/11/30 09:42:50 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.4.3.2-1 INPUT BUFFER AC RESPONSE TEST

3.4.3.2-2 GAIN OF 1 KHZ

ACCEPTABLE VALUES ARE 0.95 TO 1.05

AND	S E N S O R															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1.03	1.04	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.04	1.03	1.03	1.03	1.03	1.03	1.04
2	1.03	1.03	1.03	1.02	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
3	1.03	1.03	1.04	1.04	1.04	1.03	1.03	1.03	1.03	1.02	1.03	1.03	1.03	1.03	1.04	1.04
4	1.03	1.03	1.03	1.04	1.03	1.03	1.03	1.04	1.03	1.02	1.03	1.03	1.03	1.03	1.02	1.03
5	1.02	1.02	1.03	1.02	1.03	1.03	1.03	1.02	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
6	1.05*	1.06*	1.05*	1.05*	1.03	1.03	1.03	1.02	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
7	1.04	1.03	1.03	1.03	1.03	1.04	1.03	1.03	1.02	1.03	1.03	1.04	1.04	1.03	1.02	1.02

TEST FAILED HAC TEST S27 NOV 30 '81

this test failed due to operator error. Amplitude of
sine wave generator was set @ 2.05V P-P instead of
2.0V P-P. See retst passed on pg 59. By 11/30/81



NOV 30 '81

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P. 10

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S.N 3 PAGE 50
1981/11/30 09:42:50 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST

3.5.3.2-3 GAIN A (51 KHZ / 1 KHZ)

ACCEPTABLE VALUES ARE 0.95 TO 1.05

RAID	S E N S I O R															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.99	0.98	0.98	0.98	0.98	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
2	0.98	0.98	0.98	0.99	0.98	0.98	0.98	0.98	0.97	0.98	0.98	0.98	0.97	0.97	0.97	0.97
3	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.97	0.98	0.98	0.98	0.98
4	0.98	0.97	0.98	0.98	0.98	0.98	0.98	0.97	0.97	0.98	0.97	0.98	0.97	0.97	0.98	0.97
5	0.99	0.99	0.98	0.99	0.98	0.98	0.98	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
6	0.98	0.97	0.97	0.97												
7	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.96	0.97	0.97	0.98

TEST PASSED

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NO 30 81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 51
1981/11/30 09:42:50 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST

3.5.3.2-4 GAIN B (300 KHZ / 1 KHZ)

ACCEPTABLE VALUES ARE 0.50 TO 0.91

BAND	S E N S O R															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.77	0.79	0.79	0.79	0.79	0.77	0.79	0.79	0.76	0.77	0.76	0.76	0.75	0.78	0.77	0.77
2	0.73	0.76	0.77	0.76	0.73	0.75	0.75	0.74	0.73	0.76	0.76	0.75	0.79	0.77	0.78	0.75
3	0.78	0.80	0.79	0.77	0.73	0.74	0.78	0.74	0.69	0.67	0.64	0.65	0.77	0.77	0.78	0.76
4	0.72	0.72	0.72	0.71	0.73	0.72	0.73	0.71	0.70	0.72	0.69	0.69	0.70	0.69	0.73	0.69
5	0.76	0.77	0.77	0.79	0.80	0.77	0.78	0.77	0.77	0.77	0.77	0.77	0.78	0.77	0.79	0.81
6	0.76	0.75	0.76	0.76												
7	0.78	0.78	0.80	0.80	0.77	0.76	0.80	0.77	0.74	0.74	0.75	0.76	0.67	0.78	0.79	0.75

TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 52

1981/11/30 09:43:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



NO. 30 '81

RAW DATA -- FOR INFORMATION ONLY

FREQUENCY

		1 KHZ			51 KHZ			300 KHZ		
RAND	SENSOR	MAX	MTN	DELTA	MAX	MTN	DELTA	MAX	MIN	DELTA
1	1	196	64	132	190	59	131	174	72	102
1	2	195	62	133	190	59	131	175	70	105
1	3	192	60	132	189	59	130	174	70	104
1	4	191	59	132	189	59	130	174	70	104
1	5	192	60	132	189	59	130	174	70	104
1	6	195	63	132	190	59	131	173	72	101
1	7	194	62	132	189	59	130	174	70	104
1	8	193	61	132	189	59	130	174	70	104
1	9	191	59	132	189	59	130	173	73	100
1	10	194	61	133	189	59	130	174	72	102
1	11	195	63	132	189	59	130	172	72	100
1	12	194	62	132	189	59	130	172	72	100
1	13	191	59	132	189	59	130	172	73	99
1	14	193	61	132	189	59	130	173	70	103
1	15	195	63	132	189	59	130	173	72	101
1	16	194	61	133	189	59	130	173	71	102

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 53
 1981/11/30 09:43:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST

REV 30 81

RAW DATA -- FOR INFORMATION ONLY

		FREQUENCY								
		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
2	1	191	59	132	189	59	130	171	74	97
2	2	194	62	132	189	59	130	172	72	100
2	3	194	62	132	189	59	130	173	71	102
2	4	190	59	131	189	59	130	172	72	100
2	5	193	61	132	188	59	129	170	74	96
2	6	195	63	132	189	59	130	172	73	99
2	7	191	59	132	188	59	129	171	72	99
2	8	193	61	132	189	59	130	171	73	98
2	9	194	62	132	187	59	128	170	74	96
2	10	191	59	132	188	59	129	172	72	100
2	11	192	60	132	188	59	129	172	72	100
2	12	195	63	132	189	59	130	172	73	99
2	13	191	59	132	187	59	128	174	70	104
2	14	192	60	132	187	59	128	173	71	102
2	15	194	62	132	187	59	128	173	70	103
2	16	190	58	132	187	59	128	171	72	99

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 54
 1981/11/30 09:43:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



RAW DATA -- FOR INFORMATION ONLY

FREQUENCY

		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
3	1	195	64	132	190	59	131	175	72	103
3	2	194	62	132	189	59	130	175	70	105
3	3	192	59	133	189	59	130	175	70	105
3	4	196	63	133	189	59	130	174	72	102
3	5	192	59	133	189	59	130	171	74	97
3	6	194	62	132	189	59	130	172	74	98
3	7	194	62	132	189	59	130	175	72	103
3	8	192	60	132	189	59	130	172	74	98
3	9	195	63	132	189	59	130	168	77	91
3	10	190	59	131	188	59	129	166	78	88
3	11	195	63	132	188	60	128	165	80	85
3	12	191	59	132	188	60	128	165	79	86
3	13	194	62	132	189	59	130	173	72	101
3	14	193	61	132	189	59	130	174	72	102
3	15	194	61	133	189	59	130	174	70	104
3	16	194	61	133	189	59	130	173	72	101

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HS-276 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 51
 1981/11/30 09:43:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



NO 30 81

RAW DATA -- FOR INFORMATION ONLY

		FREQUENCY								
		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
4	1	194	62	132	190	60	130	170	75	95
4	2	193	61	132	187	59	128	170	75	95
4	3	194	62	132	189	60	129	170	75	95
4	4	194	61	133	189	59	130	170	75	95
4	5	194	62	132	189	59	130	170	74	96
4	6	193	61	132	189	59	130	170	75	95
4	7	194	62	132	189	59	130	171	74	97
4	8	192	59	133	189	60	129	170	75	95
4	9	195	63	132	188	60	128	169	76	93
4	10	190	59	131	188	59	129	169	75	94
4	11	194	62	132	188	60	128	168	77	91
4	12	193	61	132	189	60	129	168	77	91
4	13	193	61	132	188	60	128	169	76	93
4	14	195	63	132	188	60	128	168	77	91
4	15	190	59	131	187	59	128	170	75	95
4	16	194	62	132	188	60	128	168	77	91

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 56
1981/11/30 09:43:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.4.2-1 INPUT BUFFER AC RESPONSE TEST

RAW DATA -- FOR INFORMATION ONLY

		FREQUENCY								
		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
5	1	193	62	131	189	59	130	173	73	100
5	2	190	59	131	189	59	130	173	72	101
5	3	195	63	132	189	60	129	175	73	102
5	4	191	61	130	188	59	129	173	70	103
5	5	191	59	132	188	59	129	177	71	106
5	6	195	63	132	189	59	130	173	72	101
5	7	192	60	132	189	59	130	174	71	103
5	8	192	61	131	189	59	130	173	72	101
5	9	195	63	132	189	59	130	173	71	102
5	10	193	61	132	189	59	130	173	72	101
5	11	191	59	132	188	59	129	173	71	102
5	12	194	62	132	189	59	130	173	72	101
5	13	194	62	132	189	59	130	175	72	103
5	14	191	59	132	189	60	129	174	72	102
5	15	193	61	132	189	59	130	176	72	104
5	16	195	63	132	189	59	130	178	71	107

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 5/
 1981/11/30 09:43:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



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RAW DATA -- FOR INFORMATION ONLY

FREQUENCY

BAND	SENSOR	1 KHZ			51 KHZ			300 KHZ		
		MAX	MTN	DELTA	MAX	MTN	DELTA	MAX	MTN	DELTA
6	1	196	61	135	192	60	132	176	74	102
6	2	197	61	136	192	60	132	176	74	102
6	3	198	63	135	192	61	131	176	73	103
6	4	196	61	135	192	61	131	175	73	102

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 58
 1981/11/30 09:43:21 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



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RAW DATA -- FOR INFORMATION ONLY

FREQUENCY

BAND	SENSOR	1 KHZ			51 KHZ			300 KHZ		
		MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
7	1	196	63	133	189	59	130	175	71	104
7	2	193	61	132	189	59	130	174	71	103
7	3	191	59	132	189	59	130	177	71	106
7	4	193	61	132	189	59	130	175	70	105
7	5	190	63	132	189	59	130	174	72	102
7	6	194	61	133	189	59	130	173	72	101
7	7	191	59	132	189	59	130	175	70	105
7	8	193	61	132	189	59	130	174	72	102
7	9	194	63	131	188	59	129	171	74	97
7	10	194	62	132	189	59	130	171	73	98
7	11	191	59	132	189	59	130	171	72	99
7	12	193	60	133	189	59	130	173	72	101
7	13	194	61	133	187	59	128	166	77	89
7	14	194	62	132	187	59	128	173	70	103
7	15	192	61	131	187	59	128	173	70	103
7	16	190	59	131	188	59	129	171	73	98

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NOV 30 '81

HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 09
1981/11/30 09:51:58 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST

3.5.3.2-2 GAIN OF 1 KHZ

ACCEPTABLE VALUES ARE 0.95 TO 1.05

BAND	S E N S O R															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00
2	1.00	0.99	1.00	1.00	1.00	0.99	1.00	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.00	0.99
3	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	0.99	1.00	0.99	0.99	1.00	1.00	0.99	1.00
4	1.00	1.00	1.00	1.00	1.00	1.00	1.01	0.99	1.00	0.99	1.00	1.00	0.99	0.99	0.99	0.99
5	0.99	0.99	0.99	0.98	1.00	1.00	0.99	1.00	1.00	1.00	0.99	0.99	1.00	1.00	0.99	0.99
6	1.02	1.02	1.02	1.02												
7	1.00	0.99	1.00	0.99	1.00	0.99	0.99	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.98	0.99

TEST PASSED

See data for Band 1 sensor 7 to verify that FR# F4256 was a test failure not a unit failure. By 11/30/81

NOTE. Ref # F.R. # F4256
NOV 30 '81



NOV 30 '81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 60
 1981/11/30 09:51:58 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST
 3.5.3.2-3 GAIN A (51 KHZ / 1 KHZ)



REV 30 81

ACCEPTABLE VALUES ARE 0.95 TO 1.05

BAND	1	2	3	4	5	6	S	E	N	S	O	K	11	12	13	14	15	16
1	0.99	1.00	1.00	1.00	0.99	1.00	1.00	0.99	0.99	1.00	0.99	0.99	0.98	0.99	0.99	0.99	0.99	0.99
2	0.99	1.00	0.99	0.99	0.99	1.00	0.99	0.99	1.00	1.00	1.00	0.99	0.98	0.98	0.98	0.98	0.99	0.99
3	0.99	1.00	1.00	1.00	0.98	0.99	0.99	0.98	0.99	0.98	0.99	0.99	0.98	0.98	1.00	0.98	0.98	0.98
4	0.98	0.99	0.98	0.99	0.98	0.98	0.98	0.99	0.98	0.99	0.98	0.98	0.99	0.99	0.99	0.99	0.99	0.99
5	1.00	1.00	1.00	1.00	0.99	0.99	1.00	0.98	0.98	0.99	0.99	0.99	0.98	0.98	0.99	0.99	0.99	0.99
6	0.98	0.98	0.98	0.98														
7	1.00	1.00	0.99	1.00	0.99	0.99	1.00	0.98	0.98	0.98	1.00	0.99	0.98	1.00	1.00	1.00	0.99	0.99

TEST PASSED

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REV 30 81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 61
1981/11/30 09:51:58 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST
3.5.3.2-4 GAIN B (300 KHZ / 1 KHZ)

ACCEPTABLE VALUES ARE 0.50 TO 0.91

BAND	1	2	3	4	5	6	S	F	N	S	O	R	10	11	12	13	14	15	16
1	0.80	0.81	0.80	0.80	0.81	0.78	0.82	0.80	0.77	0.78	0.77	0.77	0.77	0.77	0.77	0.77	0.79	0.78	0.79
2	0.76	0.78	0.79	0.77	0.75	0.77	0.77	0.76	0.76	0.78	0.78	0.77	0.80	0.79	0.80	0.77	0.79	0.80	0.77
3	0.80	0.81	0.80	0.80	0.75	0.76	0.79	0.76	0.72	0.69	0.66	0.67	0.78	0.79	0.81	0.78	0.79	0.81	0.78
4	0.73	0.74	0.73	0.74	0.74	0.73	0.75	0.74	0.72	0.73	0.70	0.70	0.72	0.71	0.74	0.71	0.79	0.80	0.83
5	0.78	0.79	0.79	0.80	0.81	0.78	0.80	0.78	0.79	0.78	0.80	0.79	0.79	0.79	0.79	0.79	0.79	0.80	0.83
6	0.76	0.76	0.79	0.77															
7	0.80	0.80	0.81	0.81	0.80	0.79	0.82	0.79	0.76	0.76	0.77	0.78	0.69	0.80	0.81	0.76	0.79	0.80	0.83

TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODIFIED FLT. S/N 3 PAGE 62
 1981/11/30 09:52:29 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



11/30/81

RAW DATA -- FOR INFORMATION ONLY

FREQUENCY

BAND	SENSOR	1 KHZ			51 KHZ			300 KHZ		
		MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
1	1	183	55	128	187	60	127	174	72	102
1	2	183	55	128	187	59	128	175	71	104
1	3	183	55	128	187	59	128	174	72	102
1	4	183	55	128	187	59	128	174	71	103
1	5	184	56	128	186	59	127	174	70	104
1	6	185	57	128	187	59	128	173	73	100
1	7	185	58	127	186	59	127	174	70	104
1	8	186	58	128	186	59	127	174	72	102
1	9	186	58	128	186	59	127	172	73	99
1	10	186	58	128	187	59	128	173	73	100
1	11	184	56	128	186	59	127	172	73	99
1	12	183	54	129	187	59	128	172	73	99
1	13	183	55	128	186	60	126	172	74	98
1	14	185	57	128	186	59	127	173	72	101
1	15	186	58	128	186	59	127	173	73	100
1	16	185	57	128	186	59	127	173	72	101

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 63
 1981/11/30 09:52:29 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.4.2-1 INPUT BUFFER AC RESPONSE TEST



REV 30 '81

RAW DATA -- FOR INFORMATION ONLY

FREQUENCY

BAND	SENSOR	1 KHZ			51 KHZ			300 KHZ		
		MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
2	1	183	55	128	187	60	127	171	74	97
2	2	182	55	127	186	59	127	172	73	99
2	3	185	57	128	186	59	127	173	72	101
2	4	185	57	128	186	59	127	172	73	99
2	5	183	55	128	186	59	127	170	74	96
2	6	182	55	127	186	59	127	171	73	98
2	7	185	57	128	186	59	127	171	73	98
2	8	185	58	127	186	60	126	171	74	97
2	9	182	55	127	186	59	127	170	74	96
2	10	183	56	127	186	59	127	172	73	99
2	11	185	58	127	186	59	127	172	73	99
2	12	183	55	128	186	59	127	172	73	99
2	13	183	55	128	185	59	126	173	71	102
2	14	185	57	128	185	59	126	173	72	101
2	15	182	54	128	185	59	126	173	70	103
2	16	185	56	127	185	59	126	171	73	98

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FIT. S/N 3 PAGE 64
 1981/11/30 09:52:29 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



REV 30 '81

RAW DATA -- FOR INFORMATION ONLY

		FREQUENCY								
		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
3	1	186	58	128	187	60	127	175	73	102
3	2	183	55	128	187	59	128	175	71	104
3	3	186	58	128	187	59	128	175	72	103
3	4	184	57	127	186	59	127	174	74	101
3	5	184	56	128	186	60	126	171	75	96
3	6	186	58	128	186	59	127	171	74	97
3	7	183	55	128	186	59	127	174	73	101
3	8	186	58	128	186	60	126	171	74	97
3	9	182	55	127	186	60	126	168	77	91
3	10	186	53	128	186	60	126	166	78	88
3	11	182	55	127	186	60	126	165	81	84
3	12	185	58	127	186	60	126	165	80	85
3	13	184	55	128	186	60	126	173	73	100
3	14	186	58	128	186	60	126	174	73	101
3	15	182	55	127	186	59	127	174	71	103
3	16	186	58	128	186	60	126	173	73	100

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HS-236 THIMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3 PAGE 60
 1981/11/30 09:52:29 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



REV 30 '81

RAW DATA -- FOR INFORMATION ONLY

FREQUENCY

		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
4	1	184	56	128	187	61	126	170	76	94
4	2	186	58	128	186	59	127	170	75	95
4	3	183	55	128	186	60	126	170	76	94
4	4	186	58	128	186	59	127	170	75	95
4	5	183	55	128	186	60	126	170	75	95
4	6	186	58	128	186	60	126	170	76	94
4	7	185	56	129	186	60	126	171	74	97
4	8	183	56	127	186	60	126	170	76	94
4	9	186	58	128	186	60	126	169	77	92
4	10	182	55	127	186	60	126	169	76	93
4	11	185	57	128	186	60	126	168	78	90
4	12	185	57	128	186	60	126	168	78	90
4	13	187	55	127	186	60	126	169	77	92
4	14	185	58	127	186	60	126	168	78	90
4	15	183	56	127	186	60	126	170	76	94
4	16	183	56	127	186	60	126	168	78	90

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 OF POOR QUALITY

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 66
 1981/11/30 09:52:29 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.2-1 INPUT BUFFER AC RESPONSE TEST



M 30 81

RAW DATA -- FOR INFORMATION ONLY

FREQUENCY										
1 KHZ				51 KHZ			300 KHZ			
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
5	1	185	58	127	186	59	127	173	74	99
5	2	183	56	127	186	59	127	173	73	100
5	3	184	57	127	187	60	127	174	74	100
5	4	184	58	126	185	59	126	173	72	101
5	5	184	56	128	186	59	127	176	72	104
5	6	183	55	128	186	59	127	173	73	100
5	7	185	58	127	186	59	127	174	72	102
5	8	185	57	128	186	60	126	173	73	100
5	9	183	55	128	186	60	126	173	72	101
5	10	185	57	128	187	60	127	173	73	100
5	11	185	58	127	186	60	126	173	72	101
5	12	184	57	127	186	60	126	173	73	100
5	13	183	55	128	186	60	126	174	73	101
5	14	185	57	128	186	60	126	174	73	101
5	15	185	58	127	186	60	126	175	73	102
5	16	184	57	127	186	60	126	178	72	106

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 67
 1981/11/30 09:52:29 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-51-3-2-1 INPUT BUFFER AC RESPONSE TEST



REV 30 81

RAW DATA -- FOR INFORMATION ONLY

		FREQUENCY								
		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MTN	DELTA	MAX	MTN	DELTA	MAX	MTN	DELTA
6	1	186	55	131	189	61	128	175	75	100
6	2	189	58	131	189	61	128	175	75	100
6	3	187	57	130	189	61	128	176	73	103
6	4	187	56	131	189	61	128	175	74	101

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 48
 1981/11/30 09:52:29 PENALT/ FULL PERFORMANCE @ AMBIENT TEMP.
 14.5.13.2-1 INPUT BUFFER AC RESPONSE TEST



REV 30 81

RAW DATA -- FOR INFORMATION ONLY

		FREQUENCY								
		1 KHZ			51 KHZ			300 KHZ		
BAND	SENSOR	MAX	MIN	DELTA	MAX	MIN	DELTA	MAX	MIN	DELTA
7	1	186	58	128	187	59	128	174	72	102
7	2	185	58	127	186	59	127	174	72	102
7	3	184	56	128	186	59	127	176	72	104
7	4	182	55	127	186	59	127	174	71	103
7	5	184	56	128	186	59	127	174	72	102
7	6	185	58	127	186	60	126	173	73	100
7	7	185	58	127	186	59	127	175	71	104
7	8	185	57	128	186	60	126	174	73	101
7	9	183	55	128	186	60	126	171	74	97
7	10	183	55	128	186	60	126	171	74	97
7	11	183	56	127	186	59	127	171	73	98
7	12	185	58	127	186	60	126	173	74	99
7	13	185	58	127	185	60	125	166	78	88
7	14	184	57	127	186	59	127	173	72	101
7	15	182	56	126	185	59	126	173	71	102
7	16	182	55	127	186	60	126	171	74	97

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HAC
TEST
527

NOV 30 '81

HS-216 THEMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3 PAGE 69
1981/11/30 10:02:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
14.5.3.3-1 INPUT BUFFER DROOP TEST

DROOP RATE (MV/SEC)

ACCEPTABLE VALUE FOR ROOM AND COLD TEMPERATURE IS -3.3 TO 3.3, HOT TEMPERATURE IS -200 TO 200

BAND	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.85	0.66	4.11 XXXX	0.67	1.39	1.11	1.19	0.77	1.10	1.47	1.23	1.14	0.53	0.56	0.69	0.96
2	0.86	1.12	0.95	1.14	0.87	0.60	1.08	1.01	0.67	0.72	0.35	0.45	0.52	0.30	1.18	0.79
3	0.57	0.80	0.52	0.63	0.64	0.68	0.61	0.58	0.47	0.94	0.83	0.98	0.80	0.50	2.51	1.84
4	0.26	0.63	0.77	0.70	1.18	0.59	0.87	0.77	0.81	0.82	0.40	0.38	0.81	0.46	0.78	0.57
5	0.63	2.61	0.79	1.03	0.46	4.90 XXXX	0.93	1.08	0.40	0.63	0.67	0.65	1.09	0.68	1.14	0.96
6	0.70	1.24	0.65	1.34												
7	0.43	1.29	0.61	0.90	0.64	1.08	0.88	1.30	0.68	0.49	0.55	1.03	2.43	0.56	0.81	0.77

MAXIMUM IS 4.90 AT BAND 5 SENSOR 6
MINIMUM IS 0.26 AT BAND 4 SENSOR 1
TEST FAILED

*Band 1 sensor 3 and Band 5 sensor 6 failed. See F.R. # F455
See QC H.R. Sheet #10 Line #14*

HAC
TEST
527
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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 70
 1981/11/30 10:03:06 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.13.3-1 INPUT BUFFER DROOP TEST



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THE FOLLOWING DATA ARE FOR INFORMATION ONLY

DUM READINGS (VOLT)

A/D REFERENCE VOLTAGES

A/D	1	2	3	4	5	6	7
LOW	1.9680	1.9680	1.9680	1.9680	1.9680	1.9650	1.9680
DUM	1.9858	1.9927	1.9903	1.9912	1.9865	1.9855	1.9898
HIGH	1.9980	1.9980	1.9980	1.9980	1.9980	1.9950	1.9980

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BAND 1															
	1	2	3	4	5	6	7	S	E	N	S	O	R		
								8	9	10	11	12	13	14	15
DCR0	1.9840	1.9998	1.9866	1.9856	1.9848	1.9857	1.9816	1.9831							
	1.9829	1.9834	1.9852	1.9833	1.9867	1.9849	1.9824	1.9845							
DCR1	1.9798	1.9793	1.9797	1.9797	1.9792	1.9796	1.9790	1.9797							
	1.9796	1.9801	1.9796	1.9795	1.9794	1.9792	1.9796	1.9796							
BAND 2															
	1	2	3	4	5	6	7	S	E	N	S	O	R		
								8	9	10	11	12	13	14	15
DCR0	1.9907	1.9908	1.9911	1.9916	1.9895	1.9880	1.9892	1.9921							
	1.9922	1.9925	1.9891	1.9917	1.9900	1.9884	1.9881	1.9903							
DCR1	1.9864	1.9860	1.9868	1.9862	1.9861	1.9863	1.9866	1.9862							
	1.9866	1.9867	1.9861	1.9867	1.9864	1.9862	1.9865	1.9864							

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527

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 71
1981/11/30 10:03:06 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3-5-3-3-1 INPUT BUFFER DROOF TEST

BAND	S E N S O R																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
DCR0	1.9870		1.9865		1.9874		1.9866		1.9859		1.9882		1.9881		1.9945		
		1.9877		1.9871		1.9873		1.9869		1.9885		1.9890		1.9843		1.9839	
DCR1	1.9841		1.9839		1.9842		1.9835		1.9836		1.9840		1.9841		1.9840		
		1.9837		1.9839		1.9839		1.9840		1.9838		1.9841		1.9835		1.9837	

EAND	SENSE														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DCR0	1.9841		1.9889		1.9914		1.9894		1.9889		1.9847		1.9889		1.9884
		1.9879		1.9885		1.9883		1.9890		1.9891		1.9848		1.9873	1.9878
DCR1	1.9848		1.9851		1.9855		1.9850		1.9849		1.9847		1.9849		1.9847
		1.9848		1.9850		1.9853		1.9851		1.9850		1.9849		1.9850	1.9849

FAN)	S E N S O R																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
DCR0	1.9834		1.9841		1.9830		1.9850		1.9821		1.9835		1.9874		1.9859		
		1.9933		1.9857		2.0047		1.9854		1.9830		1.9837		1.9832		1.9854	
DCR1	1.9803		1.9802		1.9807		1.9804		1.9801		1.9802		1.9799		1.9802		
		1.9802		1.9805		1.9802		1.9800		1.9799		1.9804		1.9798		1.9806	

BAND	6	7	8	9	10	11	12	13	14	15	16
DCR0	1.9894		1.9892								
		1.9977		1.9920							
DCR1	1.9859		1.9859								
		1.9860		1.9853							

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 77
 1981/11/30 10:03:06 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.3-1 INPUT BUFFER DROOP TEST



BAND	7								S	E	N	S	O	R						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
DCR0	1.9858		1.9868		1.9869		1.9879		1.9868		1.9862		1.9973		1.9877					
		1.9896		1.9879		1.9886		1.9897		1.9855		1.9899		1.9860		1.9874				
DCR1	1.9837		1.9838		1.9837		1.9835		1.9834		1.9834		1.9831		1.9836					
		1.9832		1.9834		1.9832		1.9832		1.9831		1.9837		1.9832		1.9834				

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HS-216 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 73
1981/11/30 10:03:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.4-1 DCR TIME CONSTANT (MSEC)

ACCEPTABLE VALUES ARE 4.5 TO 8.5 MSEC

BAND	1	2	3	4	5	6	S	F	N	S	O	R	11	12	13	14	15	16
1	6.0	5.9	6.4	6.3	6.1	6.2	6.2	6.4	5.9	6.0	6.1	6.0	5.8	5.7	6.0	6.1		
2	6.1	6.2	5.9	6.0	6.1	6.2	6.1	6.2	5.9	6.0	6.0	6.0	6.1	6.2	6.1	6.1		
3	6.1	6.2	5.9	5.9	6.0	6.0	6.1	6.2	6.1	6.0	5.9	6.1	6.1	6.1	6.0	5.9		
4	5.9	5.8	6.0	6.1	6.2	6.1	5.9	6.0	6.1	6.1	6.0	5.9	5.8	5.8	5.9	6.1		
5	6.1	6.2	6.1	5.9	6.0	6.0	6.1	6.2	6.0	6.1	6.2	5.9	5.8	5.7	6.0	6.1		
6	6.1	6.2	6.2	6.1														
7	5.9	6.1	6.3	6.2	6.1	6.0	6.1	6.0	6.2	5.9	6.0	6.0	6.1	6.1	5.9	6.0		

CHECK ONE: TEST PASSED ☒ TEST FAILED

See data for Band 1 sensor 7 to verify FR# 4256 was a
tester failure no a unit failure. By 11/30/81



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Appendix A

Multiplexer Performance Data

A/D THRESHOLD TEST DATA
Band 1

Section 4A

REVIEWED PAGES 74-788

12/1/91



HS-236 THOMATIC MAPPER MUX UNIT TEST MODEL 11 FLT. S/N 3 PAGE 74
 1981/11/30 10:07:26 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
 0.5.1.5-H AND THRESHOLD TEST COND= 1.0 SENSITIVE-1
 S I M M A R Y

REV 30 8.

CHECK 1) RRS ERROR, 2) THRESHOLD INCREMENT (+/- 0.0 <= THRESH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

TEST FIT STRAIGHT LINE IS: Y = 15.803X - 46.4MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.142%
 OFFSET IS: -46.4MV
 COEFFICIENT OF DETERMINATION IS: R**2= .99998190
 ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RRS ERROR = 4.878MV REENT: RRS ERROR = 2.815MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
27.6MV	243	15.868MV	0.8MV	92	5.749MV

DIFFER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.6MV	244	-0.021MV	-1.1MV	251	.705MV

DIFFER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.1MV	245	-0.019MV	-1.6MV	177	.711MV

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TEST PASSED



HS-236 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. 5/N 3 PAGE 75
 1981/11/30 10:02:40 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-4 AND THRESHOLD TEST (RAND= 1.0 SENSITIVE)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-36.1	-0.1	-0.9		-31.0	-5.1
2	1111 1110	-8.750	-25.3	0.5	0.6	10.7	-15.2	-10.7
3	1111 1101	6.875	-0.5	-0.0	0.8	24.8	0.6	-1.1
4	1111 1100	22.500	13.2	-0.8	-0.8	13.7	16.4	-3.7
5	1111 1011	38.125	30.0	-0.8	-0.8	16.8	32.2	-7.2
6	1111 1010	53.750	42.6	0.4	0.0	12.6	48.0	-5.5
7	1111 1001	69.375	66.0	0.7	0.6	23.4	63.8	2.1
8	1111 1000	85.000	71.8	-0.7	0.0	5.8	79.7	-7.8
9	1111 0111	100.625	91.5	-0.8	-0.8	19.7	95.5	-4.0
10	1111 0110	116.250	105.1	-0.0	-0.7	13.6	111.3	-6.7
11	1111 0101	131.875	127.3	0.7	0.7	22.2	127.1	0.2
12	1111 0100	147.500	143.1	0.8	0.8	15.8	142.9	0.2
13	1111 0011	163.125	157.3	-0.7	0.1	14.2	158.7	-1.4
14	1111 0010	178.750	173.4	-0.6	-0.5	16.1	174.5	-1.0
15	1111 0001	194.375	193.5	0.6	-0.1	20.0	190.3	-6.2
16	1111 0000	210.000	201.0	0.4	0.8	7.5	204.1	-5.1
17	1110 1111	225.625	218.5	0.0	0.8	17.4	221.9	-3.4
18	1110 1110	241.250	230.7	-0.6	-0.7	12.2	237.7	-7.0
19	1110 1101	256.875	255.5	-0.8	-0.7	24.9	254.5	-2.1
20	1110 1100	272.500	270.5	0.7	0.0	14.9	269.3	-1.2
21	1110 1011	288.125	284.6	0.7	0.6	14.1	285.1	-0.5
22	1110 1010	303.750	299.1	-0.8	-0.1	14.5	300.9	-1.0
23	1110 1001	319.375	321.8	-0.6	-0.6	22.7	315.7	-5.1
24	1110 1000	335.000	329.9	-0.1	-0.7	8.1	332.5	-2.4
25	1110 0111	350.625	346.0	0.5	0.7	16.1	348.3	-2.3

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HS-216 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 26
 1981/11/30 10:07:40 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 74.74.74.74 AND THRESHOLD TEST CRAND= 3.4 SENSITIVITY=1

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	359.7	0.5	0.6	13.7	364.1	-4.4
27	1110 0101	381.875	383.2	-0.8	-0.0	23.5	379.9	3.3
28	1110 0100	397.500	402.2	-0.9	-0.8	18.9	395.7	6.4
29	1110 0011	413.125	411.8	0.8	-0.0	9.6	411.5	0.3
30	1110 0010	428.750	428.0	0.6	0.5	16.2	427.3	0.7
31	1110 0001	444.375	448.1	-0.1	0.7	20.1	443.1	5.0
32	1110 0000	460.000	448.9	-0.7	-0.7	0.8	458.9	-10.0
33	1101 1111	475.625	474.0	-0.8	-0.8	25.1	474.7	-0.8
34	1101 1110	491.250	483.8	0.5	-0.1	9.8	490.5	-6.7
35	1101 1101	506.875	509.1	0.7	0.8	25.3	506.3	2.8
36	1101 1100	522.500	523.0	-0.8	0.0	13.8	522.1	0.9
37	1101 1011	538.125	539.8	-0.6	-0.6	16.8	538.0	1.9
38	1101 1010	553.750	552.1	0.0	-0.6	12.3	551.8	-1.6
39	1101 1001	569.375	575.7	0.6	0.8	23.5	569.6	6.1
40	1101 1000	585.000	582.6	0.7	0.6	6.9	583.4	-2.0
41	1101 0111	600.625	601.2	-0.9	-0.1	18.6	601.2	-0.0
42	1101 0110	616.250	613.7	-0.8	-0.7	12.6	617.0	-3.7
43	1101 0101	631.875	636.7	0.7	0.0	22.9	632.8	3.9
44	1101 0100	647.500	652.3	0.7	0.8	15.6	653.1	9.7
45	1101 0011	663.125	665.9	0.1	0.9	11.6	664.1	1.5
46	1101 0010	678.750	681.8	-0.6	-0.7	15.9	680.2	1.6
47	1101 0001	694.375	703.2	-0.9	-0.7	21.4	696.0	7.5
48	1101 0000	710.000	713.0	0.8	0.0	9.8	711.8	1.3
49	1100 1111	725.625	727.5	0.6	0.6	14.4	727.6	-0.1
50	1100 1110	741.250	738.6	-0.5	0.1	11.1	741.4	-4.3
51	1100 1101	756.875	763.7	-0.8	-0.7	25.1	759.2	4.5

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HS 236 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 77

1981/11/30 10:07:40 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDFAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	779.3	-0.1	-0.9	15.6	775.0	4.3
53	1100 1011	788.125	793.1	0.6	0.7	13.8	790.8	2.3
54	1100 1010	803.750	805.7	0.6	0.7	12.6	806.6	-0.9
55	1100 1001	819.375	830.1	-0.8	-0.1	24.4	822.4	7.6
56	1100 1000	835.000	840.4	-0.7	-0.7	10.4	838.2	2.2
57	1100 0111	850.625	853.9	0.6	-0.1	13.4	854.0	-0.1
58	1100 0110	866.250	866.5	0.5	0.6	12.6	869.8	-3.3
59	1100 0101	881.875	889.8	-0.0	0.7	23.3	885.6	4.2
60	1100 0100	897.500	909.6	-0.8	-0.8	19.8	901.4	8.2
61	1100 0011	913.125	919.9	-0.8	-0.9	10.3	917.2	2.7
62	1100 0010	928.750	934.1	0.6	0.0	14.2	933.0	1.1
63	1100 0001	944.375	955.4	0.7	0.5	21.3	948.8	6.6
64	1100 0000	960.000	967.5	-0.8	0.0	12.1	964.6	2.8
65	1011 1111	975.625	983.6	-0.7	-0.7	16.1	980.4	3.1
66	1011 1110	991.250	993.6	-0.1	-0.7	10.0	992.3	-2.7
67	1011 1101	1006.88	1018.6	0.7	0.7	25.0	1012.1	6.5
68	1011 1100	1022.50	1030.6	0.8	0.8	12.0	1022.9	2.7
69	1011 1011	1038.13	1049.3	-0.9	-0.1	18.7	1043.7	5.6
70	1011 1010	1053.75	1060.5	-0.8	-0.8	11.2	1059.5	1.0
71	1011 1001	1069.38	1084.5	0.7	-0.1	23.9	1075.3	9.2
72	1011 1000	1085.00	1088.4	0.7	0.7	3.9	1091.1	-2.7
73	1011 0111	1100.63	1109.1	-0.1	0.7	20.7	1105.9	2.2
74	1011 0110	1116.25	1121.7	-0.6	-0.5	12.5	1122.7	-1.0
75	1011 0101	1131.88	1146.0	-0.8	-0.8	24.3	1138.5	7.5
76	1011 0100	1147.50	1159.8	0.8	0.0	13.8	1154.3	5.5
77	1011 0011	1163.13	1174.5	0.6	0.7	14.7	1170.1	4.4
78	1011 0010	1178.75	1189.8	-0.5	0.1	15.3	1185.9	3.9

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3 PAGE 70

1981/11/30 10:07:40 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-4 AND THRESHOLD TEST (BAND= 1, SENSOR=1)

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THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1211.1	-0.9	-0.8	21.3	1201.7 9.4
80	1011 0000	1210.00	1221.0	0.1	-0.7	9.9	1217.5 3.5
81	1010 1111	1225.63	1235.2	0.8	0.8	14.2	1233.3 1.9
82	1010 1110	1241.25	1245.2	0.7	0.7	9.9	1249.1 -3.9
83	1010 1101	1256.88	1271.3	-0.8	-0.8	26.7	1264.9 6.4
84	1010 1100	1272.50	1286.3	-0.9	-0.8	15.0	1280.7 5.6
85	1010 1011	1288.13	1300.8	0.8	-0.0	14.5	1296.5 4.3
86	1010 1010	1303.75	1312.6	0.7	0.6	11.8	1312.3 0.3
87	1010 1001	1319.38	1336.6	0.1	0.8	23.9	1328.1 8.5
88	1010 1000	1335.00	1344.1	-0.7	-0.7	7.5	1343.9 0.2
89	1010 0111	1350.63	1362.1	-0.8	-0.9	17.9	1359.7 2.3
90	1010 0110	1366.25	1373.2	0.7	0.7	11.1	1375.5 -2.4
91	1010 0101	1381.88	1397.2	0.7	0.7	24.0	1391.3 5.8
92	1010 0100	1397.50	1415.7	-0.7	-0.0	18.6	1407.1 8.6
93	1010 0011	1413.13	1427.2	-0.8	-0.7	11.4	1422.9 4.2
94	1010 0010	1428.75	1441.3	0.2	-0.6	14.2	1439.7 2.6
95	1010 0001	1444.38	1462.3	0.8	0.7	21.0	1454.6 7.8
96	1010 0000	1460.00	1466.6	0.7	0.7	4.2	1470.4 -3.8
97	1001 1111	1475.63	1487.6	-0.7	-0.8	21.0	1486.2 1.5
98	1001 1110	1491.25	1496.8	-0.8	-0.7	9.7	1502.0 -5.1
99	1001 1101	1506.88	1522.1	0.7	-0.1	25.2	1517.8 4.3
100	1001 1100	1522.50	1534.4	0.8	0.8	12.3	1533.6 0.8
101	1001 1011	1538.13	1552.5	-0.0	0.8	18.1	1549.4 3.1
102	1001 1010	1553.75	1563.6	-0.8	-0.8	11.1	1564.2 -1.6
103	1001 1001	1569.38	1589.2	-0.7	-0.8	25.6	1581.0 8.2
104	1001 1000	1585.00	1593.7	0.6	0.7	4.5	1594.8 -9.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 79

1981/11/30 10:07:40 FINALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5-3.5-4 A/D THRESHOLD TEST (BAND= 1) REFERENCE= 1

THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1:1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
105 1001 0111	1600.63	1613.0	0.7	0.7	19.2	1612.6	0.4
106 1001 0110	1616.25	1624.8	-0.7	0.0	11.8	1628.4	-3.6
107 1001 0101	1631.88	1649.4	-0.8	-0.7	24.6	1644.2	1.2
108 1001 0100	1647.50	1663.9	0.0	-0.8	14.5	1650.0	0.9
109 1001 0011	1663.13	1678.3	0.7	0.6	14.4	1675.8	2.5
110 1001 0010	1678.75	1692.4	0.6	0.6	14.1	1691.6	0.8
111 1001 0001	1694.38	1715.0	-0.9	-0.8	22.5	1707.4	7.6
112 1001 0000	1710.00	1728.1	-0.8	-0.8	13.1	1723.2	4.9
113 1000 1111	1725.63	1738.7	0.9	0.0	10.6	1739.0	-0.8
114 1000 1110	1741.25	1748.1	0.8	0.7	9.4	1744.8	-6.7
115 1000 1101	1756.88	1774.0	0.0	0.8	25.9	1770.6	3.3
116 1000 1100	1772.50	1789.7	-0.7	-0.9	15.7	1786.4	1.3
117 1000 1011	1788.13	1805.2	-0.8	-0.7	15.5	1802.2	3.0
118 1000 1010	1803.75	1815.6	0.7	0.6	10.4	1818.0	-2.4
119 1000 1001	1819.38	1840.5	0.8	0.6	24.9	1833.8	6.7
120 1000 1000	1835.00	1851.4	-0.7	-0.1	10.9	1849.5	1.8
121 1000 0111	1850.63	1865.4	-0.7	-0.8	14.0	1865.4	-0.0
122 1000 0110	1866.25	1876.6	0.0	-0.6	11.2	1881.2	-4.6
123 1000 0101	1881.88	1900.2	0.8	0.8	23.5	1897.0	3.1
124 1000 0100	1897.50	1918.4	0.8	0.8	18.3	1912.8	5.6
125 1000 0011	1913.13	1930.9	-0.8	-0.8	12.5	1928.7	2.1
126 1000 0010	1928.75	1944.8	-0.8	-0.6	13.9	1934.5	0.4
127 1000 0001	1944.38	1965.9	0.8	0.1	21.1	1960.3	5.6
128 1000 0000	1960.00	1978.8	0.9	0.8	12.9	1976.1	2.8
129 0111 1111	1975.63	1987.1	0.1	0.9	8.2	1991.9	-4.8
130 0111 1110	1991.25	1998.6	-0.9	-0.7	11.5	2007.7	-9.1



HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 80
1981/11/30 10:07:40 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
4.11.3.5--B AND THRESHOLD TEST (RAND) 1 1 15E-04 15E-04 1 1 15E-04 15E-04

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM MIN V THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2024.1	-0.8	-0.8	2023.5	0.6
132	0111 1100	2022.50	2037.4	0.8	0.8	2039.3	-1.9
133	0111 1011	2038.13	2052.9	0.8	0.8	2051.1	-2.2
134	0111 1010	2053.75	2066.4	-0.7	-0.1	2070.9	-4.5
135	0111 1001	2069.38	2089.2	-0.7	-0.8	2086.7	2.5
136	0111 1000	2085.00	2094.9	-0.1	-0.8	2102.5	-7.4
137	0111 0111	2100.63	2113.4	0.8	0.9	2118.3	-4.9
138	0111 0110	2116.25	2126.0	0.7	0.6	2134.1	-8.1
139	0111 0101	2131.88	2150.1	-0.8	-1.0	2149.9	0.2
140	0111 0100	2147.50	2167.3	-0.8	-0.8	2165.7	1.6
141	0111 0011	2163.13	2178.9	0.9	0.1	2181.5	-2.6
142	0111 0010	2178.75	2195.3	0.7	0.7	2197.3	-2.0
143	0111 0001	2194.38	2214.4	0.0	0.8	2213.1	1.2
144	0111 0000	2210.00	2224.0	-0.8	-0.7	2228.9	-4.9
145	0110 1111	2225.63	2240.3	-0.9	-0.8	2244.7	-4.4
146	0110 1110	2241.25	2250.3	0.7	0.6	2260.5	-10.1
147	0110 1101	2256.88	2275.5	0.8	0.8	2276.3	-0.8
148	0110 1100	2272.50	2293.5	-0.8	-0.1	2292.1	1.3
149	0110 1011	2288.13	2306.1	-0.9	-0.8	2307.9	-1.9
150	0110 1010	2303.75	2319.3	0.0	-0.7	2333.7	-4.4
151	0110 1001	2319.38	2340.7	0.7	0.7	2369.5	1.1
152	0110 1000	2335.00	2347.8	0.9	0.9	2371.3	-7.5
153	0110 0111	2350.63	2366.4	-0.8	-0.8	2371.1	-4.8
154	0110 0110	2366.25	2378.9	-0.6	-0.8	2397.0	8.0
155	0110 0101	2381.88	2401.8	1.0	-0.3	2402.8	-0.9
156	0110 0100	2397.50	2421.6	0.8	0.8	2418.6	3.0
157	0110 0011	2413.13	2431.1	0.0	0.9	2434.4	-3.2

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 12

1981/11/30 10:07:40 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

11-23-81 A/D THRESHOLD TEST CHANNEL 1 - SEP 23-81 3 11/30/81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	FIRST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
184	0100 1000	2835.00	2855.8	0.8	0.9	10.7	2851.1	-5.1
185	0100 0111	2850.63	2869.7	0.0	0.9	13.9	2876.9	-2.2
186	0100 0110	2866.25	2882.5	-0.9	-0.8	12.8	2892.7	-10.2
187	0100 0101	2881.88	2907.0	-0.1	-0.9	24.5	2908.5	-1.5
188	0100 0100	2897.50	2926.5	0.9	0.8	19.5	2924.1	2.2
189	0100 0011	2913.13	2935.7	0.8	0.8	9.2	2940.1	1.4
190	0100 0010	2928.75	2952.0	-0.7	-0.0	16.2	2971.9	-1.2
191	0100 0001	2944.38	2971.4	-0.8	-0.8	19.5	2971.7	-0.2
192	0100 0000	2960.00	2988.3	-0.1	-0.9	16.9	2987.5	0.8
193	0011 1111	2975.63	2999.4	0.0	0.1	11.1	3003.3	-3.9
194	0011 1110	2991.25	3009.0	-0.1	0.6	9.5	3019.1	-10.1
195	0011 1101	3006.88	3035.9	-0.8	-0.7	27.0	3034.9	1.0
196	0011 1100	3022.50	3049.0	-0.9	-0.9	13.0	3050.2	-1.2
197	0011 1011	3038.13	3065.1	0.9	-0.1	16.1	3066.5	-1.4
198	0011 1010	3053.75	3076.3	0.8	0.9	11.2	3082.4	-6.0
199	0011 1001	3069.38	3100.3	0.1	1.0	24.0	3098.1	2.2
200	0011 1000	3085.00	3106.0	-0.9	-0.9	5.2	3113.9	-7.9
201	0011 0111	3100.63	3126.6	-0.1	-0.9	20.6	3129.2	-3.1
202	0011 0110	3116.25	3137.4	0.8	0.9	10.7	3145.5	-3.2
203	0011 0101	3131.88	3162.4	0.8	0.9	25.1	3151.3	1.1
204	0011 0100	3147.50	3178.8	-0.9	0.0	16.3	3177.1	1.2
205	0011 0011	3163.13	3192.8	-0.8	-0.8	14.0	3192.9	-0.1
206	0011 0010	3178.75	3207.5	-0.0	-0.8	14.6	3208.7	-1.2
207	0011 0001	3194.38	3227.2	0.8	0.8	19.2	3224.5	2.6
208	0011 0000	3210.00	3238.7	0.0	0.9	11.5	3230.1	-1.2
209	0010 1111	3225.63	3254.7	-0.8	-0.6	16.0	3263.1	-1.5

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US-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 83
1981/11/30 10:07:40 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
GAIN + G-TIME ONLY THRESHOLD TEST AGAINST A REFERENCE

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE LEVELS RATIO= NOMINAL	VOLTAGE LOWER	(MV) 1:1 DIFFER	INCREASE FROM REFU THRESHOLD	BEST FIT STRAIGHT LINE POINT	DEVIATION
210	0010 1110	3241.25	3263.6	-0.9	-0.6	8.9	3221.9	-0.4
211	0010 1101	3256.88	3289.1	0.9	0.1	25.6	3282.7	1.4
212	0010 1100	3272.50	3306.5	0.8	0.9	17.3	3289.6	2.9
213	0010 1011	3288.13	3319.3	-0.1	0.9	12.8	3319.4	-0.1
214	0010 1010	3303.75	3332.1	-1.0	-0.9	12.8	3331.2	-3.0
215	0010 1001	3319.38	3355.9	-0.3	-0.8	23.8	3341.0	-1.0
216	0010 1000	3335.00	3361.6	0.9	0.9	5.7	3353.8	-1.1
217	0010 0111	3350.63	3380.0	0.9	0.9	18.4	3382.6	-1.6
218	0010 0110	3366.25	3392.6	-0.7	0.1	12.6	3398.4	-1.8
219	0010 0101	3381.88	3417.7	-0.9	-0.8	25.0	3414.2	1.5
220	0010 0100	3397.50	3436.5	-0.1	-0.8	18.8	3430.0	5.5
221	0010 0011	3413.13	3446.7	0.8	0.8	10.2	3445.8	0.9
222	0010 0010	3428.75	3462.0	-0.1	0.8	15.2	3461.6	0.4
223	0010 0001	3444.38	3482.6	-0.9	-0.9	20.6	3477.4	-1.2
224	0010 0000	3460.00	3485.5	-0.9	-0.9	2.9	3493.2	-2.7
225	0001 1111	3475.63	3508.5	0.7	0.0	23.0	3509.0	-0.5
226	0001 1110	3491.25	3517.3	0.8	0.8	8.8	3524.8	-2.5
227	0001 1101	3506.88	3544.1	-0.3	0.8	26.8	3540.6	1.5
228	0001 1100	3522.50	3558.5	-1.1	-0.9	14.4	3558.4	2.1
229	0001 1011	3538.13	3575.1	-0.1	-0.8	16.5	3572.2	1.9
230	0001 1010	3553.75	3584.7	0.8	0.7	9.6	3583.8	-1.3
231	0001 1001	3569.38	3611.2	0.8	0.8	26.5	3603.8	2.4
232	0001 1000	3585.00	3617.6	-0.9	0.1	6.4	3619.6	-2.6
233	0001 0111	3600.63	3635.9	-0.9	-0.7	18.3	3631.4	0.5
234	0001 0110	3616.25	3647.1	0.0	-0.7	11.2	3651.2	-3.1
235	0001 0101	3631.88	3672.0	0.8	0.9	24.8	3667.0	-1.0
236	0001 0100	3647.50	3687.6	-0.1	0.9	15.6	3682.3	1.5

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 81
 1981/11/30 10:07:40 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.13.5-13 AND THRESHOLD TEST (BAND- 1) COMPLETED 12 30 '81



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3703.2	-0.9	-0.9	15.6	3698.6	4.6
238	0001 0010	3678.75	3716.9	-0.9	-0.8	13.7	3714.4	2.5
239	0001 0001	3694.38	3737.4	0.9	-0.0	20.5	3730.2	7.1
240	0001 0000	3710.00	3752.4	0.8	1.1	17.1	3746.0	6.4
241	0000 1111	3725.63	3764.5	-0.1	0.8	12.1	3761.8	2.7
242	0000 1110	3741.25	3773.6	-0.3	-0.5	9.1	3777.7	-4.0
243	0000 1101	3756.88	3801.2	-0.1	-0.8	27.6	3791.5	7.8
244	0000 1100	3772.50	3815.2	1.6	1.0	14.0	3809.3	6.0
245	0000 1011	3788.13	3830.5	0.8	0.8	15.2	3825.1	5.4
246	0000 1010	3803.75	3842.5	-0.8	0.0	12.0	3840.9	1.6
247	0000 1001	3819.38	3868.7	-1.0	-0.9	26.2	3866.7	12.0
248	0000 1000	3835.00	3878.2	-0.0	-0.8	9.5	3872.5	1.7
249	0000 0111	3850.63	3891.6	0.7	0.9	13.4	3888.3	3.3
250	0000 0110	3866.25	3903.2	-0.2	0.7	11.6	3884.1	-0.9
251	0000 0101	3881.88	3929.5	-1.1	-0.8	26.3	3919.9	9.6
252	0000 0100	3897.50	3949.6	-1.0	-0.9	20.1	3931.7	14.9
253	0000 0011	3913.13	3959.0	0.9	0.1	9.4	3951.5	7.5
254	0000 0010	3928.75	3973.4	0.7	0.9	14.5	3967.3	6.1
255	0000 0001	3944.38	3994.5	-0.4	1.1	21.1	3983.1	11.4

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HS-236 INITIALIC MATTER MUX UNIT TEST MODEL.. FIT. S/N 3 PAGE 82
 1981/11/30 10:14:17 PRIORITY FULL PERFORMANCE @ AMBIENT TEMP.
 A.S.S.-13 AND THRESHOLD TEST (BAND- 1 & 2) (FINDING- 1) 12/30/81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (KV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	PLANTED

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-28.5	-1.0	0.1	-23.7	-4.7
2	1111 1110	-8.750	-19.1	-0.2	-0.1	-7.9	-11.2
3	1111 1101	6.875	7.5	0.1	-0.0	7.8	-0.3
4	1111 1100	22.500	19.1	0.1	0.1	21.6	-4.1
5	1111 1011	38.125	38.0	0.1	0.0	39.4	-1.4
6	1111 1010	53.750	49.3	-0.1	-0.1	50.2	-3.8
7	1111 1001	69.375	74.3	-0.1	-0.2	70.9	3.3
8	1111 1000	85.000	78.1	0.1	0.1	86.2	-6.6
9	1111 0111	100.625	99.1	0.1	0.2	102.5	-3.4
10	1111 0110	116.250	110.6	-0.1	-0.1	118.3	-7.7
11	1111 0101	131.875	135.5	-0.1	-0.1	134.1	1.1
12	1111 0100	147.500	150.0	0.0	0.0	149.8	0.2
13	1111 0011	163.125	165.3	0.0	-0.0	160.6	-0.3
14	1111 0010	178.750	179.0	0.1	0.1	181.4	-2.6
15	1111 0001	194.375	201.6	-0.1	0.0	197.2	4.4
16	1111 0000	210.000	211.6	-0.1	-0.1	212.9	-1.3
17	1110 1111	225.625	276.5	-0.1	-0.1	229.2	-2.3
18	1110 1110	241.250	235.9	0.0	0.1	244.5	-8.6
19	1110 1101	256.875	262.3	-0.1	0.2	260.3	1.0
20	1110 1100	272.500	276.8	-0.0	0.1	276.1	0.7
21	1110 1011	288.125	292.8	0.0	-0.1	291.8	1.0
22	1110 1010	303.750	304.3	0.0	-0.0	307.6	-3.3
23	1110 1001	319.375	328.9	-0.0	0.1	321.4	1.5
24	1110 1000	335.000	336.1	-0.1	0.1	339.2	-3.0
25	1110 0111	350.625	353.9	-0.1	-0.0	354.9	-1.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 32

1981/11/30 10:14:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1157 S27 TEST AND THRESHOLD TEST CHANNELS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM REFV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	365.6	-0.1	-0.0	11.7	370.7	-5.1
27	1110 0101	381.875	390.1	0.0	0.1	24.5	386.5	4.6
28	1110 0100	397.500	407.7	0.0	0.1	17.6	402.3	4.8
29	1110 0011	413.125	419.9	-0.1	-0.1	12.2	418.1	4.8
30	1110 0010	428.750	433.9	-0.1	0.0	14.0	434.8	6.0
31	1110 0001	444.375	456.1	-0.0	-0.0	22.2	449.6	5.4
32	1110 0000	460.000	458.9	0.1	0.1	2.8	455.4	-4.5
33	1101 1111	475.625	480.4	-0.1	0.0	21.5	481.2	-0.8
34	1101 1110	491.250	489.1	-0.1	-0.0	8.8	496.9	-5.8
35	1101 1101	506.875	516.1	-0.1	-0.1	27.0	512.7	4.4
36	1101 1100	522.500	528.0	0.0	0.0	11.9	528.5	-0.5
37	1101 1011	538.125	546.5	0.1	0.1	18.5	544.3	6.3
38	1101 1010	553.750	557.4	-0.1	-0.0	10.8	560.1	-6.7
39	1101 1001	569.375	582.6	-0.1	-0.1	25.3	575.8	-6.8
40	1101 1000	585.000	588.8	-0.0	-0.1	6.2	591.5	-6.8
41	1101 0111	600.625	607.4	0.0	0.0	18.6	607.4	0.0
42	1101 0110	616.250	618.3	0.0	0.0	10.9	623.2	-6.8
43	1101 0101	631.875	643.5	-0.2	-0.1	25.2	639.9	1.6
44	1101 0100	647.500	658.4	-0.1	-0.0	14.8	654.2	6.7
45	1101 0011	663.125	673.4	-0.0	0.0	15.0	670.5	7.9
46	1101 0010	678.750	686.4	0.0	0.0	13.0	685.3	6.1
47	1101 0001	694.375	709.2	0.0	0.0	22.8	707.1	7.1
48	1101 0000	710.000	722.9	-0.1	0.0	13.7	717.8	7.8
49	1100 1111	725.625	733.9	0.0	0.0	11.0	733.6	0.8
50	1100 1110	741.250	743.0	-0.0	0.0	9.1	749.4	-8.2
51	1100 1101	756.875	769.5	0.1	0.1	24.5	771.2	-14.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 08
 1981/11/30 10:14:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 54.54.44.44 AND THRESHOLD TEST CHANNEL 1. 54.54.44.44

THRESHOLD NUMBER	A/D THRESHOLD	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM 100 V THRESHOLD	BEST FIT STRAIGHT LINE	
				NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100	1100	772.500	784.1	0.0	-0.0	14.6	781.0	3.2
53	1100	1011	788.125	799.9	0.0	-0.0	15.7	796.7	3.3
54	1100	1010	803.750	810.8	0.0	0.0	11.0	812.5	-1.7
55	1100	1001	819.375	835.6	0.1	0.0	24.7	833.3	2.3
56	1100	1000	835.000	846.4	0.1	0.1	10.8	844.1	2.3
57	1100	0111	850.625	860.3	-0.0	0.1	13.9	859.8	0.4
58	1100	0110	866.250	871.5	-0.2	-0.0	11.3	875.6	-4.1
59	1100	0101	881.875	896.1	0.0	0.1	24.5	891.4	4.7
60	1100	0100	897.500	914.0	-0.0	0.1	18.0	907.2	6.8
61	1100	0011	913.125	925.9	-0.1	-0.0	11.8	924.0	2.9
62	1100	0010	928.750	939.7	-0.1	-0.0	13.3	938.7	0.5
63	1100	0001	944.375	961.6	0.0	-0.0	27.4	954.5	7.1
64	1100	0000	960.000	973.4	0.2	0.2	11.7	970.3	3.1
65	1011	1111	975.625	989.3	0.0	0.0	15.9	986.1	3.2
66	1011	1110	991.250	997.3	-0.0	-0.1	8.0	1001.8	-4.5
67	1011	1101	1006.88	1024.4	-0.1	-0.1	27.1	1017.6	7.8
68	1011	1100	1022.50	1035.6	-0.0	-0.0	11.1	1033.4	2.2
69	1011	1011	1038.13	1050.3	0.1	0.0	19.7	1049.2	3.1
70	1011	1010	1053.75	1064.9	0.0	0.0	9.6	1065.0	-0.0
71	1011	1001	1069.38	1090.3	0.1	0.1	25.4	1080.7	9.6
72	1011	1000	1085.00	1093.7	-0.2	-0.2	3.4	1096.5	-2.8
73	1011	0111	1100.63	1115.5	0.1	0.0	21.8	1112.3	3.2
74	1011	0110	1116.25	1125.4	0.0	0.1	9.9	1128.1	-2.7
75	1011	0101	1131.88	1150.8	-0.0	0.1	25.4	1143.3	7.0
76	1011	0100	1147.50	1165.0	-0.1	-0.0	14.1	1172.5	5.3
77	1011	0011	1163.13	1181.0	0.0	0.0	16.0	1176.4	5.6
78	1011	0010	1178.75	1193.0	0.0	0.0	12.0	1191.2	1.8

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	DIGITAL VALUE (mV)	ANALOG INPUT VOLTAGE (mV)	LEVELS RATIO=	1:1 DIFFER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER				PERCENT
79	1011 0001	1194.38	1216.2	0.1	0.0	23.2	1207.0	9.2
80	1011 0000	1210.00	1229.0	-0.0	0.0	12.8	1222.7	6.2
81	1010 1111	1225.63	1241.1	0.0	-0.0	12.1	1238.5	7.6
82	1010 1110	1241.25	1249.4	0.0	-0.1	8.3	1249.3	-3.9
83	1010 1101	1256.88	1276.2	0.0	0.1	26.8	1270.1	5.1
84	1010 1100	1272.50	1290.4	0.0	0.1	14.2	1283.0	4.5
85	1010 1011	1288.13	1307.0	0.0	0.0	16.6	1301.6	5.4
86	1010 1010	1303.75	1317.0	-0.0	0.0	9.9	1317.4	-0.4
87	1010 1001	1319.38	1342.1	-0.1	-0.1	25.2	1334.2	9.0
88	1010 1000	1335.00	1349.3	0.1	0.1	7.2	1349.0	0.3
89	1010 0111	1350.63	1367.1	-0.0	0.0	17.8	1364.7	2.3
90	1010 0110	1366.25	1377.4	-0.1	-0.1	10.3	1380.5	-3.1
91	1010 0101	1381.88	1402.4	-0.1	-0.1	25.0	1396.3	6.1
92	1010 0100	1397.50	1419.2	0.1	0.0	16.8	1412.1	7.1
93	1010 0011	1413.13	1432.5	0.0	0.0	13.3	1427.8	4.7
94	1010 0010	1428.75	1444.8	-0.0	0.0	12.1	1443.6	1.2
95	1010 0001	1444.38	1467.8	-0.1	-0.1	22.9	1459.4	8.4
96	1010 0000	1460.00	1476.2	0.0	-0.2	8.4	1479.2	1.0
97	1001 1111	1475.63	1492.0	0.0	0.1	15.9	1491.0	1.1
98	1001 1110	1491.25	1499.7	0.0	0.1	7.7	1504.7	-2.0
99	1001 1101	1506.88	1527.3	-0.1	-0.0	27.6	1522.5	4.8
100	1001 1100	1522.50	1538.5	-0.1	-0.1	11.2	1538.3	0.2
101	1001 1011	1538.13	1558.1	0.0	0.0	19.6	1554.1	4.0
102	1001 1010	1553.75	1567.1	0.1	0.0	9.0	1569.0	-2.7
103	1001 1001	1569.38	1593.3	0.1	-0.0	26.2	1585.6	7.7
104	1001 1000	1585.00	1598.3	-0.1	-0.2	5.0	1601.3	-3.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 91

1981/11/30 10:14:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4-11-3-5-4 A/D THRESHOLD TEST (RANGE 1 - 154) 11/30/81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT	DEVIATION
			NOMINAL LOWER UPPER			
131	0111 1101	2006.88	2027.4 0.0 0.1	24.9	2027.4	-0.0
132	0111 1100	2022.50	2040.3 -0.1 -0.1	12.9	2043.2	-2.9
133	0111 1011	2038.13	2059.3 0.0 -0.1	19.1	2059.0	0.4
134	0111 1010	2053.75	2069.4 0.1 0.2	10.1	2074.7	-5.1
135	0111 1001	2069.38	2092.9 0.1 0.1	23.4	2090.5	2.9
136	0111 1000	2085.00	2097.2 -0.2 0.0	4.4	2105.3	-9.1
137	0111 0111	2100.63	2119.2 -0.2 -0.0	22.0	2122.1	-2.8
138	0111 0110	2116.25	2128.7 0.0 -0.1	9.5	2137.9	-9.1
139	0111 0101	2131.88	2154.2 0.1 0.2	25.5	2153.6	0.6
140	0111 0100	2147.50	2169.8 -0.1 0.1	15.6	2159.4	0.4
141	0111 0011	2163.13	2185.3 -0.1 -0.1	15.4	2185.2	0.1
142	0111 0010	2178.75	2196.3 -0.1 -0.1	11.0	2201.0	-4.7
143	0111 0001	2194.38	2219.3 0.1 -0.0	23.0	2216.7	2.6
144	0111 0000	2210.00	2230.0 0.2 0.1	10.7	2232.5	-2.5
145	0110 1111	2225.63	2244.5 0.0 0.2	14.4	2248.3	-3.8
146	0110 1110	2241.25	2252.7 -0.2 -0.1	8.2	2264.1	-11.4
147	0110 1101	2256.88	2279.4 0.0 -0.2	26.6	2279.9	-0.5
148	0110 1100	2272.50	2295.6 0.1 0.2	16.2	2295.6	-0.0
149	0110 1011	2288.13	2311.0 0.2 0.0	15.4	2311.4	-0.4
150	0110 1010	2303.75	2320.2 -0.1 2.1	9.2	2327.2	-7.0
151	0110 1001	2319.38	2344.7 -0.1 -0.1	24.5	2343.0	1.7
152	0110 1000	2335.00	2352.7 0.1 -0.2	8.0	2358.7	-6.0
153	0110 0111	2350.63	2370.8 0.1 0.2	18.0	2374.5	-3.7
154	0110 0110	2366.25	2380.5 0.0 0.2	9.7	2390.3	-9.8
155	0110 0101	2381.88	2406.0 -0.1 -0.2	25.5	2406.1	-0.1
156	0110 0100	2397.50	2424.3 -0.1 -0.2	18.3	2421.9	2.4
157	0110 0011	2413.13	2436.8 0.2 0.1	12.5	2437.6	-0.9

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 92

1981/11/30 10:14:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-R A/D THRESHOLD TEST (RAN- 1.5 REFINED)



REV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
159	0110 0010	2428.75	2447.9	0.1	0.1	11.2	2453.4	-1.5
159	0110 0001	2444.38	2470.8	0.0	0.2	22.9	2469.2	1.8
160	0110 0000	2460.00	2476.9	-0.3	-0.3	6.0	2485.0	-8.1
161	0101 1111	2475.63	2495.8	-0.0	-0.1	19.0	2500.7	-4.9
162	0101 1110	2491.25	2503.1	0.1	0.1	7.3	2514.5	-13.4
163	0101 1101	2506.88	2530.6	0.1	0.0	27.5	2532.3	-1.7
164	0101 1100	2522.50	2543.7	-0.2	-0.1	13.1	2548.1	-4.4
165	0101 1011	2538.13	2562.5	-0.1	-0.1	18.8	2563.9	-1.4
166	0101 1010	2553.75	2572.0	0.0	-0.2	9.5	2579.6	-7.7
167	0101 1001	2569.38	2597.6	0.1	0.2	25.6	2590.4	7.2
168	0101 1000	2585.00	2603.4	-1.1	0.2	5.8	2611.2	-7.8
169	0101 0111	2600.63	2622.3	-0.1	-0.2	18.9	2627.0	-4.6
170	0101 0110	2616.25	2631.2	-0.2	-0.1	8.9	2642.7	-11.5
171	0101 0101	2631.88	2656.9	0.2	0.0	25.7	2658.5	-1.6
172	0101 0100	2647.50	2672.8	0.1	0.2	15.9	2674.3	-1.5
173	0101 0011	2663.13	2688.5	-0.1	0.2	15.7	2690.1	-1.5
174	0101 0010	2678.75	2698.7	-0.1	-0.2	10.1	2705.9	-7.2
175	0101 0001	2694.38	2722.3	0.0	-0.1	23.6	2721.6	0.6
176	0101 0000	2710.00	2736.8	0.2	0.2	14.5	2737.4	-0.6
177	0100 1111	2725.63	2747.4	0.2	0.2	10.5	2753.2	-5.8
178	0100 1110	2741.25	2755.3	-0.2	-0.1	7.9	2769.0	-13.7
179	0100 1101	2756.88	2782.6	-0.1	-0.2	27.2	2784.7	-2.2
180	0100 1100	2772.50	2799.4	0.0	-0.2	16.8	2800.5	-1.1
181	0100 1011	2788.13	2814.1	0.1	0.1	14.8	2816.3	-2.2
182	0100 1010	2803.75	2824.5	0.0	0.2	10.4	2832.1	-7.5
183	0100 1001	2819.38	2849.6	-0.3	-0.3	25.1	2847.9	1.8

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EX 30 81

HS-236 THEMATIC MAPPER MIX UNIT TEST MODIFIED FIT. S/N 3 PAGE 93
1981/11/30 10:14:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
A/D THRESHOLD TEST (RANGE 1) PENALTY 1

THRESHOLD NUMBER	A/D THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
184	0100 1000	2835.00	2858.4 -0.3 -0.3	8.8	2843.6 -5.2
185	0100 0111	2850.63	2873.9 0.2 -0.1	15.4	2879.3 -11.5
186	0100 0110	2866.25	2883.1 0.2 0.2	9.2	2891.2 -12.1
187	0100 0101	2881.88	2908.9 -0.1 0.2	25.8	2911.0 -11.1
188	0100 0100	2897.50	2927.5 -0.3 -0.2	18.6	2926.2 0.7
189	0100 0011	2913.13	2940.6 -0.1 -0.1	13.1	2942.5 -1.9
190	0100 0010	2928.75	2950.8 0.1 0.2	10.1	2958.4 -7.5
191	0100 0001	2944.38	2974.1 0.1 0.2	23.3	2974.1 -0.0
192	0100 0000	2960.00	2990.4 -0.5 -0.1	16.3	2989.9 0.1
193	0011 1111	2975.63	3002.4 -0.2 -0.1	12.1	3005.2 -3.2
194	0011 1110	2991.25	3009.8 -0.1 -0.2	7.3	3011.4 -11.5
195	0011 1101	3006.88	3037.5 0.2 0.2	27.7	3037.2 0.3
196	0011 1100	3022.50	3048.9 -0.0 0.1	11.4	3054.0 -11.0
197	0011 1011	3038.13	3069.7 -0.2 -0.2	20.8	3069.7 1.0
198	0011 1010	3053.75	3078.5 -0.1 -0.2	8.8	3084.1 -6.0
199	0011 1001	3069.38	3104.7 0.2 0.0	26.2	3100.3 4.4
200	0011 1000	3085.00	3106.8 0.2 0.2	2.1	3116.1 -9.1
201	0011 0111	3100.63	3129.5 -0.1 0.1	22.7	3131.9 -7.3
202	0011 0110	3116.25	3138.6 -0.2 -0.2	9.0	3147.6 -9.1
203	0011 0101	3131.88	3164.8 0.0 -0.2	26.2	3163.4 1.4
204	0011 0100	3147.50	3179.9 0.1 0.2	15.1	3179.2 0.7
205	0011 0011	3163.13	3196.5 0.2 0.2	16.5	3195.0 1.5
206	0011 0010	3178.75	3209.2 -0.3 0.0	12.7	3210.2 -1.7
207	0011 0001	3194.38	3230.4 -0.3 -0.2	21.2	3225.5 1.9
208	0011 0000	3210.00	3244.0 -0.0 -0.3	13.6	3242.3 1.7
209	0010 1111	3225.63	3255.8 0.1 0.2	11.8	3250.1 -2.3

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HS-206 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 24
 1981/11/30 10:14:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.57-4.57-13 A/D THRESHOLD TEST (RANGE 1) 1451500-17



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO= 1:1 LOWER	UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3243.3	0.0	0.2	7.5	3273.9	-10.6
211	0010 1101	3256.88	3291.5	-0.6	-0.1	28.2	3289.6	1.0
212	0010 1100	3272.50	3306.8	-0.3	-0.2	15.4	3301.4	1.9
213	0010 1011	3288.13	3323.2	0.0	0.0	16.3	3321.2	2.0
214	0010 1010	3303.75	3333.1	0.2	0.1	9.9	3347.0	-4.9
215	0010 1001	3319.38	3358.5	-0.1	0.3	25.4	3352.8	1.0
216	0010 1000	3335.00	3344.0	-0.3	-0.3	5.5	3348.5	-4.5
217	0010 0111	3350.63	3383.6	0.0	-0.1	19.5	3384.3	-0.7
218	0010 0110	3366.25	3392.5	0.1	0.2	8.9	3400.1	-7.6
219	0010 0101	3381.88	3418.6	0.2	0.2	26.1	3415.9	2.8
220	0010 0100	3397.50	3437.0	-0.2	0.1	18.3	3431.6	5.3
221	0010 0011	3413.13	3450.8	-0.2	-0.1	13.8	3447.4	3.4
222	0010 0010	3428.75	3460.9	-0.0	-0.2	10.1	3453.2	-2.3
223	0010 0001	3444.38	3484.4	0.1	0.1	23.5	3479.0	5.4
224	0010 0000	3460.00	3494.1	-0.1	0.4	9.6	3494.8	-0.7
225	0001 1111	3475.63	3509.9	-0.4	-0.3	15.8	3510.5	-0.7
226	0001 1110	3491.25	3516.8	-0.2	-0.2	6.9	3526.3	-9.5
227	0001 1101	3506.88	3545.5	0.2	0.1	28.7	3542.1	3.4
228	0001 1100	3522.50	3557.1	0.1	0.3	11.6	3552.9	-0.7
229	0001 1011	3538.13	3577.4	-0.1	0.3	20.3	3574.6	3.8
230	0001 1010	3553.75	3586.0	-0.1	-0.2	8.6	3592.4	-1.9
231	0001 1001	3569.38	3613.1	-0.2	-0.3	27.1	3605.2	7.9
232	0001 1000	3585.00	3618.6	0.2	0.3	5.5	3621.0	-2.1
233	0001 0111	3600.63	3637.8	0.2	0.3	19.2	3636.8	1.1
234	0001 0110	3616.25	3646.7	-0.3	0.1	8.9	3652.5	-1.8
235	0001 0101	3631.88	3673.6	-0.4	-0.3	26.9	3668.3	1.3
236	0001 0100	3647.50	3689.0	-0.1	-0.2	15.3	3684.1	4.2

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 95

1981/11/30 10:14:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-H A/D THRESHOLD TEST (BAND)= 1 SENSITIVITY

HAC
TEST
S27

NO. 33 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREVIOUS THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3705.6	0.1	0.3	16.6	3699.9	5.7
238	0001 0010	3678.75	3717.6	-0.1	0.2	12.0	3715.6	1.9
239	0001 0001	3694.38	3739.7	-0.4	1.6	22.1	3731.4	8.3
240	0001 0000	3710.00	3757.2	-0.4	-0.2	17.5	3747.2	10.0
241	0000 1111	3725.63	3765.1	0.3	0.0	7.9	3761.0	2.1
242	0000 1110	3741.25	3772.5	0.2	0.2	7.4	3778.8	-4.2
243	0000 1101	3756.88	3801.7	-0.4	0.0	29.1	3791.5	7.1
244	0000 1100	3772.50	3817.4	-0.3	-0.3	15.7	3810.3	7.1
245	0000 1011	3788.13	3833.5	-0.1	-0.2	16.1	3826.1	7.4
246	0000 1010	3803.75	3842.7	0.2	0.4	9.2	3841.9	0.8
247	0000 1001	3819.38	3868.8	0.2	0.3	24.1	3862.6	11.2
248	0000 1000	3835.00	3878.2	-0.4	-0.0	9.4	3873.4	4.8
249	0000 0111	3850.63	3894.1	-0.3	-0.2	15.8	3889.2	4.9
250	0000 0110	3866.25	3902.7	0.2	0.1	8.7	3901.0	-2.2
251	0000 0101	3881.88	3929.6	0.2	0.3	26.9	3920.8	8.9
252	0000 0100	3897.50	3947.3	-0.1	0.3	17.6	3936.1	10.7
253	0000 0011	3913.13	3962.1	-0.4	-0.3	14.8	3952.3	9.8
254	0000 0010	3928.75	3971.8	-0.3	-0.1	9.7	3968.1	11.7
255	0000 0001	3944.38	3997.8	0.1	0.1	26.0	3983.9	14.0

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HS-206 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 96

1981/11/30 10:20:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.3-4 A/D THRESHOLD TEST (RANGE = 1, SENSITIVITY = 1)
SUMMARY



10 11

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT (+/- 0.0 <= THRESH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

FIT FTT STRAIGHT LINE IS: Y = 17.834X - 39.9MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.353%

OFFSET IS: -39.9MV

COEFFICIENT OF DETERMINATION IS: Rxx2 = .99998040

ANALOG INPUT DURING DC RSTORE IS: 64.4MV

RMS ERROR = 4.988MV REGRM: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
28.11V	243	15.912MV	2.1MV	32	6.0021V

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.9MV	194	-0.059MV	-2.4MV	210	.393MV

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.9MV	194	-0.015MV	-2.4MV	210	.376MV

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 97
1981/11/30 10:20:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-A AND THRESHOLD TEST (RANGE= 10 SENSITIVITY= 1000)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
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THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-28.9	-0.8	-0.1		-24.0	-4.9
2	1111 1110	-8.750	-18.0	-0.0	-0.8	10.9	-8.2	-9.8
3	1111 1101	6.875	7.0	0.1	0.2	25.0	7.6	-0.6
4	1111 1100	22.500	19.7	-0.1	0.0	12.6	23.5	-3.8
5	1111 1011	38.125	37.9	-0.6	-0.6	18.2	39.3	-1.4
6	1111 1010	53.750	50.0	-0.3	-0.3	12.1	55.1	-5.1
7	1111 1001	69.375	73.9	0.1	-0.0	23.8	71.0	2.9
8	1111 1000	85.000	78.9	-0.3	-0.3	5.0	86.8	-8.0
9	1111 0111	100.625	98.9	-0.1	0.4	20.0	102.7	-3.8
10	1111 0110	116.250	112.1	-0.8	-0.7	13.2	118.5	-6.4
11	1111 0101	131.875	135.3	0.0	-0.3	23.2	134.3	1.0
12	1111 0100	147.500	150.7	-0.0	0.1	15.4	150.2	0.5
13	1111 0011	163.125	165.0	0.4	0.5	14.2	166.0	-1.0
14	1111 0010	178.750	180.8	-0.8	-0.1	15.8	181.8	-1.1
15	1111 0001	194.375	202.1	-0.5	-0.3	21.4	197.7	4.5
16	1111 0000	210.000	211.7	-0.0	-0.3	9.5	213.5	-1.8
17	1110 1111	225.625	226.6	0.1	0.3	14.0	229.3	-2.7
18	1110 1110	241.250	237.2	-0.1	0.6	10.6	241.7	-7.9
19	1110 1101	256.875	262.8	-0.3	-0.1	25.5	261.0	1.8
20	1110 1100	272.500	278.4	-0.1	0.0	15.6	278.9	1.5
21	1110 1011	288.125	293.1	0.4	-0.1	14.7	292.7	0.4
22	1110 1010	303.750	305.9	0.3	0.4	12.8	308.5	-2.6
23	1110 1001	319.375	329.4	-0.0	0.3	23.5	324.4	5.0
24	1110 1000	335.000	337.2	0.4	0.3	7.8	340.2	-3.0
25	1110 0111	350.625	354.7	-0.0	-0.2	17.5	355.0	-1.3

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 98
 1981/11/30 10:20:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5-3.5-4 A/D THRESHOLD TEST (RANGE = 10 SENSITIVITY)



12/30/81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TDFAI VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	367.2	0.7	0.7	12.5	371.9	-4.7
27	1110 0101	381.875	390.3	0.5	0.5	23.1	387.7	2.6
28	1110 0100	397.500	409.3	-0.1	0.0	19.0	403.5	5.8
29	1110 0011	413.125	420.9	-0.3	-0.3	11.6	419.4	1.5
30	1110 0010	428.750	436.5	-0.1	-0.9	15.5	435.2	1.3
31	1110 0001	444.375	457.2	0.2	0.3	20.7	451.1	6.1
32	1110 0000	460.000	459.7	0.0	0.3	2.5	466.9	-7.2
33	1101 1111	475.625	481.8	-0.3	-0.2	22.1	482.7	-1.0
34	1101 1110	491.250	492.1	-0.7	-0.7	10.3	498.6	-6.5
35	1101 1101	506.875	517.3	0.1	0.0	25.3	514.4	2.9
36	1101 1100	522.500	530.3	-0.0	-0.0	12.9	530.2	0.0
37	1101 1011	538.125	548.2	-0.4	-0.1	17.9	546.1	2.1
38	1101 1010	553.750	559.8	-0.3	-0.2	11.6	561.9	-2.1
39	1101 1001	569.375	584.3	-0.2	-0.3	24.4	577.7	6.5
40	1101 1000	585.000	591.5	-0.6	-0.7	7.2	599.6	-2.1
41	1101 0111	600.625	609.1	0.3	0.2	17.6	609.4	-0.3
42	1101 0110	616.250	621.6	-0.7	0.0	12.5	625.3	-3.6
43	1101 0101	631.875	645.1	-0.2	-0.2	23.5	641.1	4.0
44	1101 0100	647.500	660.8	0.0	-0.0	15.6	656.9	3.8
45	1101 0011	663.125	675.1	0.3	0.4	14.3	672.8	2.3
46	1101 0010	678.750	689.1	-0.0	0.8	14.0	688.6	0.5
47	1101 0001	694.375	711.6	-0.2	-0.2	22.5	704.4	7.2
48	1101 0000	710.000	724.6	-0.3	-0.3	13.0	720.3	4.4
49	1100 1111	725.625	736.0	0.2	-0.1	11.4	744.1	-0.1
50	1100 1110	741.250	746.1	0.6	0.5	10.1	751.9	-17.8
51	1100 1101	756.875	771.9	-0.3	-0.1	25.7	767.8	4.1

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1981/11/30 10:20:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.75 + 13.5 - 13 AND THRESHOLD TEST CHANNEL - L & H PENALTY - 1



NO 30 81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	787.6	0.0	0.0	15.7	781.6	3.9
53	1100 1011	788.125	802.3	0.0	-0.3	14.7	799.5	7.9
54	1100 1010	803.750	814.3	0.1	0.1	12.0	815.3	-1.0
55	1100 1001	819.375	837.9	0.3	0.3	23.6	841.1	2.7
56	1100 1000	835.000	848.7	0.3	-0.0	10.8	847.0	1.7
57	1100 0111	850.625	863.0	-0.2	-0.2	14.4	862.8	0.2
58	1100 0110	866.250	874.9	0.6	-0.1	11.8	878.5	-1.8
59	1100 0101	881.875	898.6	0.1	0.2	23.7	894.5	4.1
60	1100 0100	897.500	917.6	-0.0	-0.1	19.0	910.3	7.2
61	1100 0011	913.125	928.9	-0.2	-0.4	11.3	925.1	7.7
62	1100 0010	928.750	943.4	-0.8	-0.8	14.6	932.0	1.5
63	1100 0001	944.375	964.7	0.1	-0.1	21.3	957.8	6.9
64	1100 0000	960.000	977.1	-0.3	-0.2	12.4	973.7	3.5
65	1011 1111	975.625	992.4	-0.1	0.0	15.3	989.5	2.9
66	1011 1110	991.250	1007.0	-0.7	-0.8	9.5	1005.3	-3.3
67	1011 1101	1006.88	1027.6	0.0	-0.2	25.6	1021.2	6.5
68	1011 1100	1022.50	1039.5	-0.1	-0.0	11.9	1037.0	2.5
69	1011 1011	1038.13	1058.4	0.1	0.1	18.9	1052.8	5.6
70	1011 1010	1053.75	1069.1	0.0	0.0	10.6	1063.7	0.4
71	1011 1001	1069.38	1093.8	0.0	-0.0	24.7	1084.5	9.3
72	1011 1000	1085.00	1097.9	-0.4	-0.0	4.1	1100.3	-2.4
73	1011 0111	1100.63	1119.0	0.1	0.1	21.1	1115.2	2.8
74	1011 0110	1116.25	1129.8	0.0	0.6	10.8	1132.0	-2.7
75	1011 0101	1131.88	1154.4	-0.1	-0.2	24.6	1147.9	1.7
76	1011 0100	1147.50	1169.3	-0.2	-0.2	14.9	1163.7	5.6
77	1011 0011	1163.13	1184.2	0.3	-0.0	14.9	1179.5	2.6
78	1011 0010	1178.75	1197.8	0.6	0.6	13.6	1195.4	2.4

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE LEVELS RATIO=		(MV) 1 :1 UPPER	INCREASE FROM PREVIOUS THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER			POINT	DEVIATION
79	1011 0001	1194.38	1220.5	-0.2	-0.1	22.7	1211.7	9.3
80	1011 0000	1210.00	1232.4	-0.1	-0.1	11.9	1222.0	5.4
81	1010 1111	1225.63	1245.1	0.1	-0.1	12.7	1242.9	2.3
82	1010 1110	1241.25	1254.2	0.7	0.7	9.1	1258.7	-4.5
83	1010 1101	1256.88	1280.1	0.2	0.2	25.9	1274.5	5.6
84	1010 1100	1272.50	1295.3	0.1	0.0	15.1	1290.4	4.2
85	1010 1011	1288.13	1311.2	-0.1	-0.1	15.9	1305.2	5.0
86	1010 1010	1303.75	1322.3	-0.1	0.0	11.1	1322.1	0.1
87	1010 1001	1319.38	1346.3	0.1	0.1	24.0	1337.9	8.4
88	1010 1000	1335.00	1353.9	-0.0	-0.3	7.6	1353.7	0.2
89	1010 0111	1350.63	1371.6	-0.1	-0.1	17.7	1369.5	2.0
90	1010 0110	1366.25	1383.2	-0.6	-0.6	11.6	1385.4	-2.2
91	1010 0101	1381.88	1406.7	0.2	0.1	23.5	1401.2	5.5
92	1010 0100	1397.50	1424.5	0.1	0.0	17.8	1417.1	2.5
93	1010 0011	1413.13	1437.0	-0.3	-0.1	12.5	1432.9	4.1
94	1010 0010	1428.75	1451.1	-0.9	-0.9	14.1	1438.2	2.4
95	1010 0001	1444.38	1472.9	0.0	-0.2	21.7	1464.5	8.3
96	1010 0000	1460.00	1480.1	0.2	0.3	7.3	1480.4	-0.1
97	1001 1111	1475.63	1497.0	0.1	0.1	16.8	1495.3	0.7
98	1001 1110	1491.25	1506.2	-0.6	0.0	9.2	1512.1	-2.9
99	1001 1101	1506.88	1532.3	-0.2	-0.2	26.1	1522.9	4.4
100	1001 1100	1522.50	1544.1	-0.0	0.0	11.8	1543.0	9.1
101	1001 1011	1538.13	1563.1	0.1	0.2	19.0	1559.8	2.5
102	1001 1010	1553.75	1573.1	-0.0	-0.2	10.0	1575.4	-2.5
103	1001 1001	1569.38	1593.4	-0.1	-0.2	20.2	1591.3	2.1
104	1001 1000	1585.00	1604.1	0.5	0.5	5.7	1607.1	-3.0

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1981/11/30 10:20:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.17.3.1-4 AND THRESHOLD TEST (RANGE 1) 51-44110-01 10/30/81



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO- LOWER	1:1 UPPER		POINT	DEVIATION
105	1001 0111	1600.63	1623.5	0.1	0.0	19.4	1622.9	0.5
106	1001 0110	1616.25	1633.9	0.7	0.5	10.4	1631.8	-4.9
107	1001 0101	1631.88	1658.8	-0.1	0.0	24.9	1654.6	4.2
108	1001 0100	1647.50	1673.7	-0.1	-0.2	14.9	1670.5	3.2
109	1001 0011	1663.13	1689.0	0.0	-0.3	15.3	1686.3	2.8
110	1001 0010	1678.75	1701.9	0.4	0.2	12.8	1702.1	-0.2
111	1001 0001	1694.38	1724.6	0.2	0.1	22.7	1718.0	6.7
112	1001 0000	1710.00	1740.1	-0.1	-0.0	15.5	1733.8	6.9
113	1000 1111	1725.63	1749.5	-0.2	-0.1	9.3	1749.6	-0.2
114	1000 1110	1741.25	1758.2	0.6	-0.0	8.7	1761.5	-7.3
115	1000 1101	1756.88	1784.7	0.2	0.1	26.5	1781.3	3.4
116	1000 1100	1772.50	1799.6	0.0	-0.1	15.0	1797.1	2.6
117	1000 1011	1788.13	1815.5	-0.1	-0.1	15.7	1813.0	2.5
118	1000 1010	1803.75	1825.9	0.2	0.1	10.4	1828.8	-2.9
119	1000 1001	1819.38	1850.6	0.2	0.0	24.7	1844.7	5.9
120	1000 1000	1835.00	1861.1	-0.0	0.0	10.6	1860.5	0.6
121	1000 0111	1850.63	1875.7	-0.1	0.0	14.6	1876.3	-0.6
122	1000 0110	1866.25	1886.9	-0.5	-0.6	11.2	1892.2	-1.2
123	1000 0101	1881.88	1911.0	0.1	-0.1	24.0	1908.0	3.0
124	1000 0100	1897.50	1928.9	0.0	0.0	17.9	1923.9	5.0
125	1000 0011	1913.13	1940.9	0.3	0.2	12.0	1939.7	1.2
126	1000 0010	1928.75	1954.8	-0.5	0.1	13.8	1955.5	-0.7
127	1000 0001	1944.38	1976.9	0.0	-0.0	22.1	1971.3	5.6
128	1000 0000	1960.00	1985.8	0.2	-0.0	8.9	1987.2	-1.4
129	0111 1111	1975.63	1999.1	0.1	0.2	13.3	2003.0	-3.9
130	0111 1110	1991.25	2008.2	-0.1	0.2	9.1	2018.9	-10.6

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HS-23A THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 102
 1981/11/30 10:20:32, FINALITY FULL PERFORMANCE @ AMBIENT TEMP.
 4.5, 13.5-41 AND THRESHOLD TEST (HAND) 10 10 10 10 10 10 10 10 10 10



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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			LEVELS RATIO 1:1				POINT	DEVIATION
			NOMINAL	LOWER	UPPER			
131	0111 1101	2006.88	2034.2	-0.0	-0.0	26.0	2034.7	-0.5
132	0111 1100	2022.50	2047.8	-0.0	-0.1	13.5	2050.5	-2.8
133	0111 1011	2038.13	2066.4	0.0	0.0	18.6	2066.4	0.0
134	0111 1010	2053.75	2076.6	-0.1	-0.0	10.2	2082.2	-5.6
135	0111 1001	2069.38	2100.4	-0.1	0.0	23.8	2098.0	2.3
136	0111 1000	2085.00	2104.7	-0.1	-0.1	4.4	2113.9	-9.1
137	0111 0111	2100.63	2126.2	0.0	0.1	21.5	2129.7	-1.5
138	0111 0110	2116.25	2136.7	0.6	0.6	10.4	2145.5	-8.8
139	0111 0101	2131.88	2161.2	0.0	0.1	24.5	2161.4	-0.2
140	0111 0100	2147.50	2177.7	-0.2	-0.0	16.4	2177.2	0.1
141	0111 0011	2163.13	2192.9	-0.0	-0.0	15.2	2193.1	-0.1
142	0111 0010	2178.75	2206.3	0.0	-0.1	13.4	2208.9	-2.4
143	0111 0001	2194.38	2226.8	0.1	0.2	20.5	2224.7	2.1
144	0111 0000	2210.00	2236.9	-0.0	0.2	10.1	2240.6	-3.5
145	0110 1111	2225.63	2252.0	-0.1	0.0	15.0	2256.4	-4.4
146	0110 1110	2241.25	2261.8	-0.6	-0.2	9.8	2272.2	-10.4
147	0110 1101	2256.88	2286.8	0.1	0.0	25.0	2288.1	-1.2
148	0110 1100	2272.50	2303.5	0.0	0.1	16.7	2303.9	-0.4
149	0110 1011	2288.13	2319.0	0.0	0.1	15.4	2319.7	-0.8
150	0110 1010	2303.75	2330.0	-0.1	-0.0	11.0	2331.5	-5.5
151	0110 1001	2319.38	2353.0	-0.0	-0.1	22.9	2351.1	1.6
152	0110 1000	2335.00	2360.4	-0.3	-0.3	7.4	2367.3	-6.9
153	0110 0111	2350.63	2378.7	0.1	0.1	18.3	2381.1	-1.4
154	0110 0110	2366.25	2390.2	-0.6	-0.0	11.4	2393.9	1.3
155	0110 0101	2381.88	2413.9	-0.1	-0.1	23.7	2414.8	-0.9
156	0110 0100	2397.50	2432.8	0.2	-0.0	18.9	2431.5	2.2
157	0110 0011	2413.13	2445.4	0.0	0.1	12.6	2446.4	-1.1

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INFSHOLD NUMBER	A/D OUTPUT THRESHOLD	DIGITAL VALUE (MV)	ANALOG INPUT VOLTAGE NOMINAL	VOLTAGE LEVELS LOWER	RATIO=1:1 UPPER	INCREASE FROM PREVIOUS THRESHOLD	BEST FIT STRAIGHT LINE POINT	DEVIATION
158	0110 0010	2428.75	2459.4	-2.3	0.2	14.0	2462.9	-2.9
159	0110 0001	2444.38	2479.4	-0.1	-0.1	20.0	2478.1	1.3
160	0110 0000	2460.00	2484.9	-0.2	-0.2	15.1	2493.9	-9.0
161	0101 1111	2475.63	2504.0	0.1	0.0	19.1	2509.8	-5.8
162	0101 1110	2491.25	2512.7	0.6	0.6	8.6	2522.6	-13.0
163	0101 1101	2506.88	2539.3	-0.1	0.0	26.6	2541.5	-2.2
164	0101 1100	2522.50	2552.7	-0.1	-0.1	13.4	2557.9	-4.6
165	0101 1011	2538.13	2571.3	-0.0	0.0	18.6	2573.1	-1.8
166	0101 1010	2553.75	2580.7	-0.1	-0.1	9.4	2589.0	-8.3
167	0101 1001	2569.38	2606.3	-0.1	0.1	25.6	2604.8	1.5
168	0101 1000	2585.00	2612.9	-0.1	0.0	6.6	2620.6	-7.8
169	0101 0111	2600.63	2631.1	-0.1	-0.1	18.3	2635.5	-5.3
170	0101 0110	2616.25	2641.1	0.6	-0.0	9.9	2652.3	-11.2
171	0101 0101	2631.88	2666.0	0.0	0.1	24.9	2668.1	-2.2
172	0101 0100	2647.50	2682.5	-0.1	0.3	16.5	2684.0	-1.5
173	0101 0011	2663.13	2698.1	-0.1	-0.1	15.6	2699.8	-1.7
174	0101 0010	2678.75	2710.5	0.0	-0.0	12.4	2715.6	-5.1
175	0101 0001	2694.38	2731.6	0.1	0.1	21.1	2731.5	0.1
176	0101 0000	2710.00	2745.5	0.1	0.1	13.9	2747.3	-1.9
177	0100 1111	2725.63	2756.8	-0.1	0.1	11.3	2763.2	-6.4
178	0100 1110	2741.25	2766.2	-0.6	-0.6	9.4	2779.0	-12.8
179	0100 1101	2756.88	2792.3	-0.0	-0.2	26.1	2794.8	-2.5
180	0100 1100	2772.50	2809.0	0.0	0.0	16.7	2810.7	-1.7
181	0100 1011	2788.13	2824.0	0.0	0.1	15.6	2836.5	-2.5
182	0100 1010	2803.75	2834.9	0.1	0.2	10.3	2852.3	-8.0
183	0100 100	2819.38	2859.1	0.0	0.0	24.3	2858.2	0.9

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1981/11/30 10:20:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.1.3.5-A A/D THRESHOLD TEST (RAND) 1. SENSITIVITY

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
184	0100 1000	2835.00	2868.2	-0.0	-0.1	9.1	2874.0	-1.0
185	0100 0111	2850.63	2883.7	0.0	0.1	15.5	2882.8	-1.0
186	0100 0110	2866.25	2894.0	0.0	0.6	10.3	2905.7	-11.6
187	0100 0101	2881.88	2919.0	-0.2	-0.1	24.9	2921.5	-2.6
188	0100 0100	2897.50	2938.4	-0.3	-0.2	19.4	2937.4	1.0
189	0100 0011	2913.13	2950.8	0.1	0.1	12.4	2953.2	-2.4
190	0100 0010	2928.75	2963.9	0.1	0.2	13.1	2969.0	-0.1
191	0100 0001	2944.38	2984.6	-0.2	-0.1	20.7	2984.9	-0.3
192	0100 0000	2960.00	3001.3	-0.3	-0.2	16.7	3000.7	0.6
193	0011 1111	2975.63	3012.7	0.0	0.6	11.4	3016.5	-3.8
194	0011 1110	2991.25	3021.3	1.9	1.9	8.6	3032.4	-11.1
195	0011 1101	3006.88	3048.2	0.1	-0.0	26.9	3048.2	-0.0
196	0011 1100	3022.50	3060.8	-0.1	-0.2	12.6	3064.0	-1.3
197	0011 1011	3038.13	3080.4	-0.1	-0.1	19.6	3079.9	0.5
198	0011 1010	3053.75	3089.3	-0.2	-0.0	8.9	3095.2	1.3
199	0011 1001	3069.38	3115.5	-0.0	0.1	26.2	3111.6	1.9
200	0011 1010	3085.00	3118.2	0.1	-0.0	2.8	3127.4	-9.2
201	0011 0111	3100.63	3140.6	-0.2	0.0	22.3	3143.2	-2.7
202	0011 0110	3116.25	3150.9	-0.7	-0.6	10.4	3159.1	-8.1
203	0011 0101	3131.88	3175.6	0.1	0.1	24.6	3174.9	0.2
204	0011 0100	3147.50	3191.3	0.2	0.2	15.7	3190.7	0.5
205	0011 0011	3163.13	3208.0	-0.1	0.0	16.7	3203.4	1.4
206	0011 0010	3178.75	3220.3	0.1	0.0	12.3	3222.4	-2.1
207	0011 0001	3194.38	3241.8	-0.1	-0.1	21.5	3238.2	3.6
208	0011 0000	3210.00	3254.8	0.1	0.2	13.0	3254.1	0.7
209	0010 1111	3225.63	3267.1	0.0	0.2	12.3	3269.9	2.8

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 104
 1981/11/30 10:20:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-5-14-5-81 A/D THRESHOLD TEST (FAND= 1. REFERENCE)

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3278.3	-2.4	-2.4	11.1	3285.8	-7.5
211	0010 1101	3256.88	3303.1	-0.3	-0.1	24.8	3301.6	1.5
212	0010 1100	3272.50	3318.3	0.1	0.0	15.2	3317.4	0.9
213	0010 1011	3288.13	3335.0	0.1	0.2	16.6	3334.3	1.7
214	0010 1010	3303.75	3345.0	0.0	-0.1	10.0	3349.1	-4.1
215	0010 1001	3319.38	3370.5	-0.3	0.0	25.5	3364.9	5.5
216	0010 1000	3335.00	3375.7	0.0	0.0	7.2	3380.8	-5.1
217	0010 0111	3350.63	3395.4	0.1	0.1	19.7	3396.6	-1.2
218	0010 0110	3366.25	3405.6	0.4	0.6	10.2	3412.4	-6.9
219	0010 0101	3381.88	3430.9	-0.2	0.0	25.0	3428.3	2.6
220	0010 0100	3397.50	3449.7	-0.5	-0.4	18.8	3434.1	5.6
221	0010 0011	3413.13	3463.2	-0.1	-0.1	13.5	3460.0	3.2
222	0010 0010	3428.75	3475.8	0.3	0.1	12.6	3475.9	0.0
223	0010 0001	3444.38	3497.0	0.2	0.2	21.1	3491.6	5.3
224	0010 0000	3460.00	3502.3	-0.3	-0.3	5.3	3507.5	-5.2
225	0001 1111	3475.63	3522.2	-0.3	-0.2	19.9	3523.3	-1.1
226	0001 1110	3491.25	3531.0	1.2	-0.2	8.8	3539.1	-8.1
227	0001 1101	3506.88	3558.5	-0.0	0.1	27.4	3555.0	1.5
228	0001 1100	3522.50	3570.5	-0.1	0.1	12.0	3570.8	-0.3
229	0001 1011	3538.13	3590.5	-0.3	-0.1	19.9	3586.6	3.8
230	0001 1010	3553.75	3598.7	0.1	0.1	8.3	3602.5	-3.7
231	0001 1001	3569.38	3625.8	-0.1	0.1	27.1	3618.3	7.5
232	0001 1000	3585.00	3631.9	-0.1	0.0	6.1	3634.2	-2.2
233	0001 0111	3600.63	3651.1	-0.1	0.1	19.1	3650.0	1.1
234	0001 0110	3616.25	3661.3	-0.8	-0.6	10.2	3665.8	-4.1
235	0001 0101	3631.88	3686.9	-0.2	-0.2	25.6	3681.7	5.2
236	0001 0100	3647.50	3702.4	0.1	0.4	15.5	3697.5	4.9

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 106

1981/11/30 10:20:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.11.3.5-4 A/D THRESHOLD TEST (BAND= 1, SENSOR=3, P=1)

HAC
TEST
527

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 10	3663.13	3719.1	-0.1	0.3	16.7	3713.3	5.8
238	0001 0010	3678.75	3731.1	0.2	0.2	11.9	3729.7	1.9
239	0001 0001	3694.38	3755.1	-1.9	-1.3	24.9	3745.0	10.1
240	0001 0000	3710.00	3769.8	0.2	0.0	14.6	3760.8	8.9
241	0000 1111	3725.63	3778.8	0.1	0.2	9.1	3776.7	2.1
242	0000 1110	3741.25	3787.5	-0.1	1.9	8.7	3792.5	-5.0
243	0000 1101	3756.88	3815.7	-0.5	-0.4	28.1	3808.4	7.3
244	0000 1100	3772.50	3831.1	-0.1	-0.0	15.4	3824.2	6.9
245	0000 1011	3788.13	3847.3	0.0	0.2	16.2	3840.0	7.3
246	0000 1010	3803.75	3856.9	-0.1	0.1	9.6	3855.9	1.0
247	0000 1001	3819.38	3883.0	-0.1	0.1	26.1	3871.7	11.3
248	0000 1000	3835.00	3892.4	-0.4	-0.3	9.4	3887.5	4.9
249	0000 0111	3850.63	3908.3	-0.1	0.0	15.8	3903.4	4.9
250	0000 0110	3866.25	3918.2	0.6	0.6	9.9	3919.2	-1.0
251	0000 0101	3881.88	3944.3	-0.4	0.1	26.1	3935.0	9.2
252	0000 0100	3897.50	3963.2	-0.5	-0.4	18.9	3950.9	12.3
253	0000 0011	3913.13	3976.6	-0.2	-0.1	13.4	3966.7	9.9
254	0000 0010	3928.75	3988.9	0.1	0.0	12.2	3982.4	6.3
255	0000 0001	3944.38	4012.7	-0.2	-1.3	23.8	3998.4	14.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3 PAGE 107
 1981/11/30 10:27:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5+3.5-3.5 AND THRESHOLD TEST (RANGE= 1. SENSE=1)
 S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT (+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

FRESH FTT STRAIGHT LINE TS: Y =15.838X -39.0MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.364%
 OFFSET TS:-39.0MV
 COEFFICIENT OF DETERMINATION IS: Rxx2= .99998130
 ANALOG INPUT DURING DC RESTORE TS:64.5MV

RMS ERROR = 4.952MV REPORT: RMS ERROR = 4.952MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
27.6MV	211	15.909MV	2.94V	32	5.978MV
LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.3MV	232	-0.040MV	-0.4MV	239	.143MV
UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.4MV	246	-0.003MV	-0.0MV	128	.148MV

TEST PASSED

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HS-236 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 108
 1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-4 A/D THRESHOLD TEST (HAND= 1) S/N= 3



THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION

NOV 30 '81

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-28.1	-0.9	0.2		-23.2	-4.9
2	1111 1110	-8.750	-17.3	-0.3	-0.2	10.8	-7.3	-10.0
3	1111 1101	6.875	8.0	-0.0	0.0	25.3	8.5	-0.3
4	1111 1100	22.500	20.6	0.1	0.1	12.7	24.3	-3.7
5	1111 1011	38.125	38.5	0.1	0.1	17.8	40.2	-1.7
6	1111 1010	53.750	50.7	-0.1	-0.1	12.2	56.0	-0.3
7	1111 1001	69.375	75.1	-0.1	-0.1	24.4	71.9	3.3
8	1111 1000	85.000	78.9	0.1	-0.0	3.7	87.7	-0.8
9	1111 0111	100.625	99.9	0.0	0.2	21.0	103.1	-3.6
10	1111 0110	116.250	112.8	-0.2	-0.1	12.9	119.4	-6.6
11	1111 0101	131.875	136.1	-0.1	-0.1	23.3	135.2	0.9
12	1111 0100	147.500	152.1	-0.0	-0.1	15.9	151.0	1.0
13	1111 0011	163.125	166.3	0.1	0.0	14.2	166.9	-0.6
14	1111 0010	178.750	181.3	-0.0	0.0	15.1	182.7	-1.4
15	1111 0001	194.375	202.9	-0.1	0.0	21.6	198.6	4.3
16	1111 0000	210.000	212.4	-0.2	-0.2	9.5	214.4	-2.0
17	1110 1111	225.625	227.8	-0.1	0.0	15.4	230.2	-2.4
18	1110 1110	241.250	238.4	0.1	0.1	10.6	246.1	-2.6
19	1110 1101	256.875	263.7	-0.1	0.0	25.3	261.9	1.8
20	1110 1100	272.500	279.4	-0.2	-0.0	15.7	277.7	1.7
21	1110 1011	288.125	294.3	-0.1	-0.1	14.9	293.6	0.8
22	1110 1010	303.750	306.9	0.0	0.0	12.6	309.4	-2.5
23	1110 1001	319.375	330.6	0.0	0.1	23.7	325.3	5.4
24	1110 1000	335.000	338.1	-0.2	-0.0	7.4	341.1	-3.0
25	1110 0111	350.625	355.7	-0.1	-0.1	17.6	355.9	-1.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 189

1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-12-3-1-11 AND THRESHOLD TEST (FAND- 1 W. REFERENCE) NOV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDFAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO= 1:1 LOWER UPPER	POINT		DEVIATION	
26	1110 0110	366.250	368.5	-0.1	-0.0	12.8	372.8	-4.1
27	1110 0101	381.875	391.6	-0.1	-0.0	23.1	388.6	3.0
28	1110 0100	397.500	410.5	0.1	0.2	18.9	404.5	6.0
29	1110 0011	413.125	421.9	-0.1	-0.0	11.4	420.3	1.6
30	1110 0010	428.750	437.1	-0.2	-0.2	15.2	434.1	0.9
31	1110 0001	444.375	458.4	-0.1	-0.0	21.3	452.0	6.4
32	1110 0000	460.000	461.3	-0.1	-0.1	2.9	467.8	-6.5
33	1101 1111	475.625	482.6	-0.1	0.0	21.3	483.6	-1.1
34	1101 1110	491.250	492.6	-0.1	-0.0	10.0	499.5	-6.9
35	1101 1101	506.875	518.5	-0.1	-0.1	25.9	515.3	3.2
36	1101 1100	522.500	531.2	0.1	0.0	12.7	531.2	0.1
37	1101 1011	538.125	549.1	-0.0	0.1	17.8	547.0	2.1
38	1101 1010	553.750	560.5	-0.1	0.0	11.4	562.8	-2.3
39	1101 1001	569.375	585.2	-0.1	-0.1	24.6	578.7	6.5
40	1101 1000	585.000	591.3	-0.1	-0.1	6.1	594.5	-3.2
41	1101 0111	600.625	610.1	0.0	0.0	18.8	610.3	-0.2
42	1101 0110	616.250	622.1	-0.0	0.0	12.0	623.2	-4.1
43	1101 0101	631.875	646.0	-0.1	-0.0	23.8	642.0	3.9
44	1101 0100	647.500	662.1	-0.2	-0.2	16.2	657.9	4.3
45	1101 0011	663.125	676.2	-0.0	0.0	14.1	673.7	2.5
46	1101 0010	678.750	690.5	0.2	0.2	14.2	689.5	0.9
47	1101 0001	694.375	712.3	0.1	0.1	21.9	705.4	6.9
48	1101 0000	710.000	725.1	-0.1	-0.1	12.8	721.2	3.9
49	1100 1111	725.625	737.1	-0.0	-0.1	12.0	737.1	0.1
50	1100 1110	741.250	747.2	-0.1	-0.1	10.1	752.9	-5.2
51	1100 1101	756.875	772.9	-0.0	0.1	25.6	768.7	4.1

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 110

1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-F A/D THRESHOLD TEST (HAND - 1) SENSITIVITY



11/30/81

THRESHOLD NUMBER	A/D THRESHOLD	OUTPUT VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
			NOMINAL	LOWER	UPPER		POINT	DEVIATION	
52	1100	1100	772.500	788.7	-0.2	-0.0	15.8	784.6	4.1
53	1100	1011	788.125	803.3	-0.2	-0.1	14.6	800.4	2.9
54	1100	1010	803.750	815.2	-0.0	-0.1	11.9	816.2	-1.0
55	1100	1001	819.375	839.0	0.1	0.1	23.8	832.1	6.9
56	1100	1000	835.000	849.4	0.0	0.0	10.3	847.9	1.4
57	1100	0111	850.625	863.9	-0.1	0.0	14.5	863.8	0.1
58	1100	0110	866.250	876.1	0.0	-0.0	12.2	879.6	-3.5
59	1100	0101	881.875	899.6	0.0	0.0	23.5	895.4	4.1
60	1100	0100	897.500	918.7	0.1	0.1	19.1	911.3	7.3
61	1100	0011	913.125	929.6	0.0	0.0	10.8	922.1	2.4
62	1100	0010	928.750	944.0	-0.0	0.0	14.4	942.9	1.1
63	1100	0001	944.375	965.6	-0.0	-0.1	21.6	958.8	6.8
64	1100	0000	960.000	977.9	0.2	0.0	12.3	974.6	3.3
65	1011	1111	975.625	993.1	0.1	0.1	15.2	990.5	1.7
66	1011	1110	991.250	1002.5	-0.2	0.0	9.3	1006.3	-3.8
67	1011	1101	1006.88	1028.6	-0.1	-0.2	26.2	1022.1	6.5
68	1011	1100	1022.50	1040.5	-0.1	-0.1	11.9	1038.0	2.6
69	1011	1011	1038.13	1059.4	0.2	0.1	18.9	1053.8	5.6
70	1011	1010	1053.75	1069.6	0.1	0.1	10.2	1069.2	-0.0
71	1011	1001	1069.38	1094.8	-0.1	-0.1	25.1	1087.5	9.3
72	1011	1000	1085.00	1097.9	-0.1	-0.1	3.1	1101.3	-3.4
73	1011	0111	1100.63	1119.8	0.1	0.0	21.9	1117.2	2.7
74	1011	0110	1116.25	1131.0	0.1	0.2	11.1	1133.0	-2.0
75	1011	0101	1131.88	1154.9	0.0	0.1	24.0	1148.8	6.1
76	1011	0100	1147.50	1170.6	-0.1	-0.1	15.2	1164.2	5.9
77	1011	0011	1163.13	1185.8	-0.0	-0.1	15.2	1180.5	5.3
78	1011	0010	1178.75	1199.0	0.0	0.0	13.3	1196.4	2.7

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HS-234 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 111

1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.13.5-3 A/D THRESHOLD TEST (BAND= 1, SENS= 4)



NOV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDFAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV. THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
79	1011 0001	1194.38	1221.3 0.0 0.1	22.2	1212.2 9.1
80	1011 0000	1210.00	1203.4 -0.2 0.0	12.1	1228.0 5.4
81	1010 1111	1225.63	1246.0 -0.1 -0.1	12.6	1243.9 2.1
82	1010 1110	1241.25	1255.4 0.1 -0.0	9.4	1259.7 -4.3
83	1010 1101	1256.88	1281.2 0.2 0.2	25.8	1275.5 5.7
84	1010 1100	1272.50	1296.0 0.2 0.2	14.8	1291.4 4.7
85	1010 1011	1288.13	1312.2 -0.1 -0.1	16.1	1307.2 4.9
86	1010 1010	1303.75	1323.3 -0.2 -0.1	11.1	1323.1 0.2
87	1010 1001	1319.38	1347.3 0.1 -0.0	24.0	1338.9 8.4
88	1010 1000	1335.00	1354.6 0.1 0.2	7.3	1354.7 -0.1
89	1010 0111	1350.63	1372.3 0.0 0.1	17.7	1370.6 1.0
90	1010 0110	1366.25	1383.8 -0.0 0.0	11.5	1386.4 -2.6
91	1010 0101	1381.88	1407.7 -0.1 -0.2	23.9	1402.3 5.4
92	1010 0100	1397.50	1425.8 0.1 0.1	18.1	1418.1 7.7
93	1010 0011	1413.13	1438.2 0.1 0.1	12.4	1433.9 4.3
94	1010 0010	1428.75	1451.9 -0.2 -0.2	13.7	1449.8 2.2
95	1010 0001	1444.38	1473.8 -0.1 -0.1	21.9	1465.6 8.2
96	1010 0000	1460.00	1481.0 0.0 -0.1	7.1	1481.4 -0.5
97	1001 1111	1475.63	1497.8 0.1 0.1	16.8	1497.3 0.5
98	1001 1110	1491.25	1506.7 0.0 0.0	8.9	1513.1 -6.4
99	1001 1101	1506.88	1533.4 -0.1 0.0	26.7	1529.0 4.5
100	1001 1100	1522.50	1545.2 -0.1 -0.1	11.8	1544.8 0.4
101	1001 1011	1538.13	1564.1 0.1 -0.0	18.9	1560.6 2.5
102	1001 1010	1553.75	1573.7 0.1 0.1	9.6	1576.5 -2.8
103	1001 1001	1569.38	1599.1 0.0 0.1	25.4	1592.3 6.8
104	1001 1000	1585.00	1604.5 -0.2 -0.2	5.3	1608.1 -3.7

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H5-236 THEMATIC MAPPER MUX UNIT TEST MODH... FLT. S/N 3 PAGE 117

1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5, 3.5-8 AND THRESHOLD TEST (CRAND) = 1.0 DEFENSE-4



NOV 30 81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDFAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
105	1001 0111	1600.63	1624.4	-0.1	-0.1	20.0	1624.0	0.4
106	1001 0110	1616.25	1635.0	0.1	0.1	10.6	1639.8	-4.8
107	1001 0101	1631.88	1659.5	0.2	0.3	24.5	1655.7	4.9
108	1001 0100	1647.50	1675.1	-0.1	0.0	15.6	1671.5	4.4
109	1001 0011	1663.13	1690.4	-0.2	-0.1	15.3	1687.3	3.1
110	1001 0010	1678.75	1703.0	0.0	0.1	12.6	1703.2	-0.7
111	1001 0001	1694.38	1725.8	0.0	0.1	22.8	1719.0	6.8
112	1001 0000	1710.00	1740.8	0.2	0.3	15.0	1734.8	6.0
113	1000 1111	1725.63	1750.4	-0.2	-0.1	9.6	1750.7	-0.3
114	1000 1110	1741.25	1759.4	-0.1	-0.1	9.0	1746.5	-7.1
115	1000 1101	1756.88	1786.1	0.1	0.0	26.6	1782.4	3.7
116	1000 1100	1772.50	1800.6	0.1	0.1	14.5	1798.2	2.4
117	1000 1011	1788.13	1816.5	-0.0	0.1	15.9	1814.0	1.4
118	1000 1010	1803.75	1827.1	-0.1	-0.2	10.6	1829.9	-2.1
119	1000 1001	1819.38	1851.6	-0.1	-0.1	24.5	1845.7	5.9
120	1000 1000	1835.00	1862.5	0.2	0.2	10.8	1861.6	0.9
121	1000 0111	1850.63	1876.6	0.1	0.1	14.2	1872.4	-0.8
122	1000 0110	1866.25	1887.7	-0.0	0.0	11.1	1881.2	-5.7
123	1000 0101	1881.88	1912.2	-0.1	-0.1	24.5	1909.1	3.1
124	1000 0100	1897.50	1930.4	0.0	-0.1	18.2	1924.9	5.1
125	1000 0011	1913.13	1942.5	0.1	0.1	12.1	1949.7	1.7
126	1000 0010	1928.75	1975.5	0.2	0.1	13.0	1965.6	-1.0
127	1000 0001	1944.38	1978.1	-0.1	-0.1	22.5	1972.4	1.7
128	1000 0000	1960.00	1987.5	-0.3	-0.3	9.4	1988.3	-0.7
129	0111 1111	1975.63	2002.5	0.0	0.0	14.9	2004.1	-1.6
130	0111 1110	1991.25	2009.4	0.1	0.2	6.9	2019.9	-10.5

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HS-236 THETA-MATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 113

1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.4.1.1-4 AND THRESHOLD TEST CRAND- TO 6 SECONDS-20 00 30 31

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2034.9	0.0	0.2	25.5	2037.8	-0.8
132	0111 1100	2022.50	2048.7	-0.1	-0.1	13.8	2051.6	-2.9
133	0111 1011	2038.13	2067.3	-0.1	-0.1	18.6	2067.4	-0.1
134	0111 1010	2053.75	2077.3	0.1	0.2	10.0	2083.3	-5.0
135	0111 1001	2069.38	2101.9	0.1	0.1	24.6	2099.1	2.0
136	0111 1000	2085.00	2106.3	-0.2	-0.0	4.4	2115.0	-8.7
137	0111 0111	2100.63	2127.2	-0.1	-0.1	20.9	2130.8	-3.6
138	0111 0110	2116.25	2138.1	0.1	-0.1	10.8	2146.6	-8.6
139	0111 0101	2131.88	2161.6	0.1	0.1	23.5	2162.5	-0.9
140	0111 0100	2147.50	2179.1	0.2	0.3	17.4	2178.3	0.8
141	0111 0011	2163.13	2193.8	-0.1	-0.2	14.7	2194.2	-0.3
142	0111 0010	2178.75	2207.6	-0.3	-0.2	13.8	2210.0	-2.4
143	0111 0001	2194.38	2227.4	0.1	0.0	19.7	2225.8	1.5
144	0111 0000	2210.00	2238.0	0.3	0.2	10.6	2241.7	-3.7
145	0110 1111	2225.63	2253.0	0.0	0.1	15.0	2257.5	-4.5
146	0110 1110	2241.25	2262.5	-0.2	-0.2	9.5	2273.3	-10.8
147	0110 1101	2256.88	2287.9	0.0	-0.1	25.4	2289.2	-1.3
148	0110 1100	2272.50	2304.6	0.2	0.2	16.7	2305.0	-0.4
149	0110 1011	2288.13	2319.9	0.1	0.1	15.3	2320.9	-1.0
150	0110 1010	2303.75	2331.1	-0.1	0.1	11.2	2336.7	-3.5
151	0110 1001	2319.38	2354.5	-0.1	-0.1	23.4	2352.5	2.0
152	0110 1000	2335.00	2361.3	-0.0	-0.2	6.7	2349.4	-7.1
153	0110 0111	2350.63	2379.8	0.1	0.1	18.5	2384.2	-4.4
154	0110 0110	2366.25	2390.8	0.1	0.1	11.0	2400.8	-9.2
155	0110 0101	2381.88	2414.4	-0.1	-0.2	23.6	2417.9	-1.4
156	0110 0100	2397.50	2434.7	-0.3	-0.3	20.2	2431.7	2.2
157	0110 0011	2413.13	2446.3	0.1	-0.0	11.6	2447.6	-1.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 114

1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4-5-4-5-4-4 AND THRESHOLD TEST CRANKS-- 1-6 DIFFERENCE-- 2-3 MV 30 01

THRESHOLD	A/D OUTPUT	IDEAL	ANALOG INPUT VOLTAGE (MV)			INCREASE	15 BIT FIT STRAIGHT LINE	
NUMBER	THRESHOLD	VALUE	LEVELS RATIO= 1 : 1			FROM PREV	POINT	DEVIATION
		(MV)	NOMINAL	LOWER	UPPER	THRESHOLD		
158	0110 0010	2428.75	2460.8	0.1	0.2	14.5	2463.4	-2.
159	0110 0001	2444.38	2481.5	0.0	0.1	20.6	2479.2	2.2
160	0110 0000	2460.00	2486.2	-0.2	-0.2	4.7	2497.1	-8.9
161	0101 1111	2475.63	2505.3	-0.2	-0.1	19.1	2510.9	-5.6
162	0101 1110	2491.25	2513.9	0.1	0.1	8.6	2526.8	-12.3
163	0101 1101	2506.88	2540.4	0.1	0.3	24.4	2542.6	-2.2
164	0101 1100	2522.50	2553.9	-0.1	0.0	13.5	2558.1	-4.5
165	0101 1011	2538.13	2572.3	-0.1	-0.1	18.3	2574.3	-2.0
166	0101 1010	2553.75	2581.7	0.0	-0.2	9.5	2590.1	-8.9
167	0101 1001	2569.38	2606.6	0.1	0.2	24.9	2605.9	0.2
168	0101 1000	2585.00	2614.0	-0.0	0.1	7.4	2611.8	-7.8
169	0101 0111	2600.63	2632.2	-0.2	-0.2	18.2	2632.6	-5.4
170	0101 0110	2616.25	2642.5	-0.2	-0.2	10.3	2653.5	-10.9
171	0101 0101	2631.88	2666.6	0.2	-0.0	24.1	2669.3	-2.2
172	0101 0100	2647.50	2684.1	0.2	0.3	17.5	2685.1	-1.0
173	0101 0011	2663.13	2698.9	0.0	0.2	14.7	2701.0	-2.1
174	0101 0010	2678.75	2712.0	-0.1	-0.2	13.1	2716.8	-4.3
175	0101 0001	2694.38	2734.0	-0.0	-0.2	22.0	2732.6	1.3
176	0101 0000	2710.00	2746.6	0.3	0.2	12.6	2748.5	-1.9
177	0100 1111	2725.63	2757.8	0.3	0.2	11.2	2764.3	-6.5
178	0100 1110	2741.25	2767.0	-0.2	-0.1	9.2	2780.2	-13.2
179	0100 1101	2756.88	2793.8	-0.2	-0.3	26.2	2796.0	-2.2
180	0100 1100	2772.50	2810.2	0.0	-0.2	16.4	2811.8	-1.6
181	0100 1011	2788.13	2824.9	0.1	0.1	14.2	2827.2	-2.7
182	0100 1010	2803.75	2835.3	-0.1	0.3	10.4	2835.5	-8.2
183	0100 1001	2819.38	2859.6	-0.2	-0.2	24.2	2859.4	0.2

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HS-236 TH-OMATIC MATTER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 117

1981/11/30 10:27:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-17-74-1-11 A/D THRESHOLD TEST COND = 1 - PERFORMANCE - 1 0V 30 '81



THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
184 0100 1000	2835.00	2870.1	-0.3	-0.2	10.5	2875.2	-0.1
185 0100 0111	2850.63	2884.8	0.2	-0.0	14.6	2891.0	-6.3
186 0100 0110	2866.25	2895.5	0.1	0.1	10.7	2906.9	-11.4
187 0100 0101	2881.88	2919.8	-0.1	-0.0	24.4	2922.7	-2.2
188 0100 0100	2897.50	2940.0	-0.2	-0.2	20.2	2938.5	1.1
189 0100 0011	2913.13	2951.9	-0.0	-0.1	11.9	2954.4	-2.4
190 0100 0010	2928.75	2965.4	0.1	0.2	13.4	2970.2	-4.2
191 0100 0001	2944.38	2986.2	0.2	0.2	21.3	2986.1	0.3
192 0100 0000	2960.00	3002.8	-0.4	0.0	16.1	3001.9	0.2
193 0011 1111	2975.63	3013.9	-0.1	-0.1	11.0	3012.2	-3.9
194 0011 1110	2991.25	3024.6	-0.0	-0.3	10.7	3031.6	-9.0
195 0011 1101	3006.88	3049.7	0.2	0.2	25.1	3049.4	0.3
196 0011 1100	3022.50	3061.9	0.0	0.2	12.2	3065.2	-3.3
197 0011 1011	3038.13	3081.4	-0.2	-0.2	19.5	3081.1	0.3
198 0011 1010	3053.75	3090.3	-0.3	-0.2	9.0	3092.9	-6.6
199 0011 1001	3069.38	3115.8	0.2	0.1	25.4	3112.8	3.0
200 0011 1000	3085.00	3119.5	0.2	0.2	3.3	3120.6	-9.1
201 0011 0111	3100.63	3141.4	-0.1	0.3	21.8	3144.1	-3.0
202 0011 0110	3116.25	3151.2	-0.3	-0.3	10.3	3160.3	-3.5
203 0011 0101	3131.88	3176.8	-0.1	-0.3	25.0	3176.1	0.6
204 0011 0100	3147.50	3193.0	0.1	0.1	16.2	3192.0	1.1
205 0011 0011	3163.13	3208.9	0.2	0.2	15.9	3207.8	1.1
206 0011 0010	3178.75	3221.5	-0.2	-0.0	12.6	3223.6	-2.1
207 0011 0001	3194.38	3244.0	-0.3	-0.1	22.5	3239.5	4.6
208 0011 0000	3210.00	3256.4	-0.1	-0.2	12.3	3255.3	1.0
209 0010 1111	3225.63	3268.2	0.1	0.2	11.8	3271.1	-2.9

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDFAL VALUE (MV)	ANALOG INPUT VOLTAGE LEVELS RATIO= NOMINAL LOWER UPPER	(MV) 1 : 1 UPPER	INCREASE FROM PREV THRESHOLD	BEST-FIT STRAIGHT LINE POINT DEVIATION		
210	0010 1110	3241.25	3277.1	-0.0	0.4	8.9	3287.0	-2.9
211	0010 1101	3256.88	3304.7	-0.3	-0.2	27.6	3307.8	1.9
212	0010 1100	3272.50	3319.8	-0.3	-0.2	15.1	3318.7	1.2
213	0010 1011	3288.13	3335.9	0.7	0.0	16.1	3334.5	1.4
214	0010 1010	3303.75	3346.0	0.1	0.1	10.1	3350.3	-4.9
215	0010 1001	3319.38	3370.6	-0.1	0.3	24.6	3356.2	4.4
216	0010 1000	3335.00	3377.5	-0.2	-0.3	6.9	3382.0	-4.5
217	0010 0111	3350.63	3396.5	-0.1	-0.2	19.0	3397.8	-1.4
218	0010 0110	3366.25	3406.7	0.7	0.7	10.2	3413.7	-6.9
219	0010 0101	3381.88	3431.9	0.1	0.7	25.2	3429.5	2.4
220	0010 0100	3397.50	3451.3	-0.3	0.0	19.4	3445.4	6.0
221	0010 0011	3413.13	3464.2	-0.3	-0.1	12.9	3461.2	3.0
222	0010 0010	3428.75	3477.5	-0.1	-0.3	13.3	3477.0	0.5
223	0010 0001	3444.38	3499.3	0.0	0.2	21.7	3492.9	6.4
224	0010 0000	3460.00	3506.8	-0.1	0.3	7.6	3508.2	-1.9
225	0001 1111	3475.63	3523.3	-0.3	-0.3	16.4	3524.6	-1.3
226	0001 1110	3491.25	3533.5	-0.4	-0.2	10.2	3530.4	-6.9
227	0001 1101	3506.88	3560.1	0.0	0.0	26.6	3556.2	3.9
228	0001 1100	3522.50	3571.8	0.7	0.3	11.6	3572.1	-0.3
229	0001 1011	3538.13	3591.1	-0.1	0.3	19.4	3587.9	3.2
230	0001 1010	3553.75	3599.9	-0.3	-0.3	8.8	3611.7	-3.2
231	0001 1001	3569.38	3626.3	-0.2	-0.2	26.4	3619.6	6.7
232	0001 1000	3585.00	3632.8	0.3	0.4	6.5	3625.4	-2.5
233	0001 0111	3600.63	3651.8	0.1	0.7	19.0	3651.3	0.6
234	0001 0110	3616.25	3662.0	-0.3	-0.0	10.2	3657.1	-5.1
235	0001 0101	3631.88	3688.4	-0.4	-0.3	26.4	3679.9	1.4
236	0001 0100	3647.50	3704.3	-0.1	-0.2	16.0	3698.8	5.6

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HRS SHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRONGEST	
			NOMINAL	LOWER	UPPER		POINT	LOCATION
237	0001 0011	3663.13	3720.1	0.1	0.2	15.7	3714.6	5.4
238	0001 0010	3678.75	3732.0	-0.1	0.2	11.9	3730.4	1.5
239	0001 0001	3694.38	3755.4	-0.4	-0.3	23.4	3746.3	9.1
240	0001 0000	3710.00	3771.0	-0.4	-0.3	15.6	3762.1	8.9
241	0000 1111	3725.63	3779.7	0.2	-0.0	8.7	3778.0	1.7
242	0000 1110	3741.25	3790.7	0.2	0.2	11.0	3793.8	-1.1
243	0000 1101	3756.88	3817.0	-0.1	0.2	26.3	3809.6	7.4
244	0000 1100	3772.50	3832.2	-0.3	-0.2	15.1	3835.5	6.3
245	0000 1011	3788.13	3848.3	-0.1	-0.2	16.1	3831.3	7.4
246	0000 1010	3803.75	3857.6	0.3	0.4	9.4	3857.2	0.5
247	0000 1001	3819.38	3883.1	0.1	0.3	25.4	3873.0	10.7
248	0000 1000	3835.00	3894.2	-0.4	-0.1	11.1	3883.8	5.4
249	0000 0111	3850.63	3909.1	-0.3	-0.1	14.8	3904.7	4.6
250	0000 0110	3866.25	3919.4	-0.1	-0.3	10.3	3910.5	-1.5
251	0000 0101	3881.88	3945.5	0.2	0.2	26.1	3936.3	9.7
252	0000 0100	3897.50	3964.3	-0.1	0.2	18.8	3957.9	12.1
253	0000 0011	3913.13	3977.6	-0.3	-0.3	13.2	3963.0	9.6
254	0000 0010	3928.75	3990.3	-0.4	-0.2	12.7	3993.9	5.1
255	0000 0001	3944.38	4012.7	0.1	0.0	22.4	3999.7	13.1

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HS-236 THIMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 118

1981/11/30 10:33:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3+5+3+5+4+4 AND THRESHOLD TEST (HAND-- 1 DEFERRED) 3
SUMMARYCHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 = THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE TS: Y =15.847% -37.2MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.419%

OFFSET IS:-37.2MV

COEFFICIENT OF DETERMINATION IS: R**2= .99997850

ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR = 5.343MV REGRD: RMS ERROR <=7.810MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
29.9MV	243	15.918MV	1.4MV	32	6.752MV

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 1:1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.4MV	242	-0.024MV	-0.3MV	33	.147MV

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 1:1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.0MV	162	-0.003MV	-1.9MV	168	.174MV

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 119

1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-13 AND THRESHOLD TEST (RAND= 1 - HENSHIRE)

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THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-26.2	-0.3	0.0		-21.4	-4.8
2	1111 1110	-8.750	-16.8	0.0	-0.0	9.3	-5.5	-11.3
3	1111 1101	6.875	9.9	0.0	0.1	26.8	10.3	-0.4
4	1111 1100	22.500	22.1	-0.0	0.0	12.1	26.2	-4.1
5	1111 1011	38.125	40.8	-0.3	-0.1	18.7	42.0	-1.2
6	1111 1010	53.750	52.0	-0.1	-0.1	11.2	57.9	-5.9
7	1111 1001	69.375	76.8	0.1	0.2	24.8	73.7	3.1
8	1111 1000	85.000	79.3	0.0	0.0	2.1	89.5	-10.3
9	1111 0111	100.625	102.1	-0.1	0.0	22.8	105.4	-3.3
10	1111 0110	116.250	113.5	-0.1	0.0	11.5	121.2	-2.7
11	1111 0101	131.875	138.1	-0.1	-0.0	24.6	137.1	1.0
12	1111 0100	147.500	153.7	0.1	0.1	15.5	152.9	0.7
13	1111 0011	163.125	168.8	-0.1	0.1	15.1	168.8	0.6
14	1111 0010	178.750	182.6	-0.2	-0.1	13.8	184.6	-2.0
15	1111 0001	194.375	205.2	-0.3	-0.1	22.5	206.5	4.2
16	1111 0000	210.000	214.7	0.1	0.0	9.5	216.3	-1.2
17	1110 1111	225.625	229.9	0.1	0.2	15.2	229.2	-2.3
18	1110 1110	241.250	239.3	0.1	0.1	9.5	243.0	-8.7
19	1110 1101	256.875	266.1	-0.2	-0.1	26.8	263.9	2.3
20	1110 1100	272.500	281.1	-0.0	-0.1	15.0	279.7	1.4
21	1110 1011	288.125	296.6	0.1	0.2	15.4	295.6	1.0
22	1110 1010	303.750	308.5	0.1	0.1	11.9	311.4	-2.9
23	1110 1001	319.375	332.8	-0.1	0.1	24.3	327.2	5.5
24	1110 1000	335.000	339.1	-0.1	-0.1	6.3	343.1	-4.0
25	1110 0111	350.625	357.9	-0.0	-0.1	18.8	358.9	-1.0

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3.5.3.5-11 AND THRESHOLD TEST (RAND- 1, SENSITIVE)

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDFAL VALUE (MV)	ANALOG INPUT VOLTAGE LEVELS NOMINAL	DIFFERENCE LOWER	RATIO= 1:1 UPPER	INCREASE FROM PREVIOUS THRESHOLD	EXPECTED STRAIGHT LINE POINT	DEVIATION
26	1110 0110	366.250	369.5	0.2	0.1	11.6	374.8	-8.6
27	1110 0101	381.875	394.0	-0.2	0.0	24.4	398.6	-16.8
28	1110 0100	397.500	412.6	-0.2	-0.1	18.6	406.5	-8.1
29	1110 0011	413.125	424.5	-0.1	-0.1	11.9	422.3	-0.8
30	1110 0010	428.750	438.4	0.0	-0.0	13.9	438.2	-0.3
31	1110 0001	444.375	460.6	0.1	0.2	22.1	454.0	-9.6
32	1110 0000	460.000	462.0	-0.0	0.3	1.4	469.9	-9.8
33	1101 1111	475.625	485.1	-0.3	-0.3	23.1	485.7	-0.6
34	1101 1110	491.250	493.7	-0.1	-0.1	8.6	501.6	-10.4
35	1101 1101	506.875	521.1	0.1	0.1	27.4	517.4	-10.6
36	1101 1100	522.500	533.2	0.0	0.1	12.1	529.3	-6.8
37	1101 1011	538.125	551.5	-0.0	0.1	18.3	549.1	-10.9
38	1101 1010	553.750	562.1	-0.1	-0.0	10.6	564.9	-11.2
39	1101 1001	569.375	587.6	-0.1	-0.1	25.5	588.8	-19.5
40	1101 1000	585.000	592.2	0.1	0.1	4.5	596.6	-11.6
41	1101 0111	600.625	612.6	-0.1	0.1	20.4	612.5	-11.9
42	1101 0110	616.250	623.6	-0.3	-0.1	11.1	628.3	-12.1
43	1101 0101	631.875	648.7	-0.2	-0.1	25.1	644.2	-12.5
44	1101 0100	647.500	664.2	0.1	0.1	15.5	659.0	-11.5
45	1101 0011	663.125	673.9	0.1	0.2	14.7	679.9	-6.8
46	1101 0010	678.750	692.2	0.2	0.2	13.3	691.2	-12.5
47	1101 0001	694.375	715.1	-0.3	-0.2	22.9	707.6	-13.3
48	1101 0000	710.000	728.4	-0.0	-0.1	13.3	723.4	-13.4
49	1100 1111	725.625	739.6	0.3	0.2	11.2	739.3	-13.7
50	1100 1110	741.250	748.7	0.0	0.0	9.0	750.1	-8.9
51	1100 1101	756.875	775.9	-0.2	0.0	27.2	771.0	-15.0

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OF POOR QUALITY**

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 121
 1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5+3.5-H A/D THRESHOLD TEST (FAND= 1. DEFENSE)



NOV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	790.9	-0.1	-0.1	15.0	786.8	4.1
53	1100 1011	788.125	806.0	0.0	-0.2	15.0	802.6	3.4
54	1100 1010	803.750	817.3	0.0	0.0	11.3	818.5	-1.2
55	1100 1001	819.375	841.7	0.1	0.2	24.4	834.3	7.4
56	1100 1000	835.000	851.5	-0.2	-0.1	9.7	850.2	1.3
57	1100 0111	850.625	866.8	-0.1	-0.2	15.3	866.0	0.7
58	1100 0110	866.250	877.8	0.0	-0.1	11.0	891.9	-4.1
59	1100 0101	881.875	902.4	0.1	0.3	24.7	897.7	4.7
60	1100 0100	897.500	921.1	0.0	0.2	18.6	913.6	7.5
61	1100 0011	913.125	932.7	-0.2	-0.3	11.6	929.4	3.3
62	1100 0010	928.750	946.0	0.1	-0.1	13.3	931.3	0.7
63	1100 0001	944.375	968.4	0.2	0.2	22.4	961.1	7.3
64	1100 0000	960.000	980.1	0.1	0.1	11.6	977.0	3.1
65	1011 1111	975.625	995.8	-0.1	0.0	15.7	992.8	1.0
66	1011 1110	991.250	1004.0	-0.0	-0.0	8.3	1003.7	-4.6
67	1011 1101	1006.88	1031.8	-0.1	-0.1	27.8	1021.5	7.3
68	1011 1100	1022.50	1042.8	0.1	0.2	11.0	1050.4	2.1
69	1011 1011	1038.13	1061.9	0.0	0.2	19.1	1076.2	5.7
70	1011 1010	1053.75	1072.1	-0.1	-0.1	10.2	1072.0	0.0
71	1011 1001	1069.38	1097.6	-0.1	-0.1	21.5	1087.9	9.7
72	1011 1000	1085.00	1099.1	0.2	0.0	1.5	1103.7	-4.7
73	1011 0111	1100.63	1122.3	0.2	0.1	23.2	1119.6	2.7
74	1011 0110	1116.25	1133.0	-0.2	-0.2	10.6	1121.4	-2.1
75	1011 0101	1131.88	1158.3	-0.1	-0.1	25.3	1151.3	7.0
76	1011 0100	1147.50	1173.3	-0.0	-0.1	15.0	1167.1	6.2
77	1011 0011	1163.13	1188.5	0.2	0.1	15.2	1183.0	5.7
78	1011 0010	1178.75	1201.2	0.1	0.1	12.7	1198.8	2.4

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 129

1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST CRAMER 3 8 SEP 85 15:55:11

02 30 31

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 NOMINAL	LOWER	UPPER	INCREASE FROM FIRM THRESHOLD	REFL FIT SPREAD RATIO
79	1011 0001	1194.38	1224.1	-0.1	-0.0	22.9	1214.7 9.5
80	1011 0000	1210.00	1236.5	-0.1	-0.1	12.4	1250.1 4.8
81	1010 1111	1225.63	1248.7	0.1	-0.1	12.2	1246.4 2.3
82	1010 1110	1241.25	1257.2	0.2	0.0	8.5	1262.2 5.0
83	1010 1101	1256.88	1284.8	-0.1	-0.0	27.6	1273.1 5.0
84	1010 1100	1272.50	1298.9	-0.1	-0.1	14.1	1293.9 5.0
85	1010 1011	1288.13	1314.9	-0.2	-0.2	16.0	1307.7 5.2
86	1010 1010	1303.75	1325.7	0.1	0.0	10.8	1325.6 0.1
87	1010 1001	1319.38	1350.4	0.1	0.1	24.7	1341.4 9.0
88	1010 1000	1335.00	1356.8	-0.1	0.0	6.4	1357.3 0.5
89	1010 0111	1350.63	1375.2	-0.2	-0.1	18.4	1392.1 2.1
90	1010 0110	1366.25	1385.9	-0.0	-0.2	18.7	1392.0 3.1
91	1010 0101	1381.88	1411.1	0.2	0.1	25.2	1404.8 6.2
92	1010 0100	1397.50	1428.7	0.1	0.1	17.7	1440.7 8.1
93	1010 0011	1413.13	1441.2	-0.2	-0.1	12.5	1436.5 4.7
94	1010 0010	1428.75	1454.3	-0.2	-0.2	13.1	1472.5 2.6
95	1010 0001	1444.38	1476.7	0.1	0.0	22.3	1468.2 8.5
96	1010 0000	1460.00	1483.3	0.2	0.1	6.6	1484.1 0.6
97	1001 1111	1475.63	1500.7	0.0	0.1	17.4	1499.2 0.8
98	1001 1110	1491.25	1508.8	-0.1	-0.2	8.1	1515.8 7.8
99	1001 1101	1506.88	1537.2	-0.2	-0.2	24.4	1531.6 5.6
100	1001 1100	1522.50	1547.5	0.1	0.0	10.7	1537.4 0.1
101	1001 1011	1538.13	1566.7	0.2	0.2	18.8	1583.3 3.4
102	1001 1010	1553.75	1576.6	-0.2	0.0	9.8	1579.1 2.6
103	1001 1001	1569.38	1607.9	-0.3	-0.2	26.3	1591.0 7.9
104	1001 1000	1585.00	1606.1	0.1	-0.0	3.2	1610.8 4.8

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 123
 1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 A.D.B.5-H AND THRESHOLD TEST (RANGE= 1.0 SENSITIVITY= 1.0)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
105 1001 0111	1600.63	1627.2 0.2 0.1	21.1	1626.7 0.5
106 1001 0110	1616.25	1637.2 0.0 0.0	10.1	1642.5 -5.3
107 1001 0101	1631.88	1663.5 -0.1 -0.0	26.3	1658.4 5.1
108 1001 0100	1647.50	1678.3 -0.1 -0.2	14.8	1674.2 4.1
109 1001 0011	1663.13	1693.7 0.2 0.0	14.9	1690.1 3.1
110 1001 0010	1678.75	1705.8 0.0 0.1	12.6	1705.9 -0.1
111 1001 0001	1694.38	1728.9 0.1 0.1	23.1	1721.8 7.1
112 1001 0000	1710.00	1744.9 -0.1 -0.1	16.0	1737.6 7.3
113 1000 1111	1725.63	1753.6 -0.2 -0.1	8.7	1753.5 0.1
114 1000 1110	1741.25	1761.4 0.1 0.0	7.8	1769.3 -7.9
115 1000 1101	1756.88	1789.8 0.1 0.1	28.4	1785.1 4.7
116 1000 1100	1772.50	1803.7 -0.1 0.0	13.9	1801.0 2.7
117 1000 1011	1788.13	1819.5 -0.2 -0.1	15.8	1816.8 7.6
118 1000 1010	1803.75	1830.0 0.0 -0.2	10.5	1832.7 -2.7
119 1000 1001	1819.38	1855.4 0.1 -0.0	25.5	1848.5 6.9
120 1000 1000	1835.00	1864.3 0.1 0.1	8.9	1864.4 -0.1
121 1000 0111	1850.63	1879.8 -0.1 -0.1	15.5	1880.2 -3.5
122 1000 0110	1866.25	1890.0 -0.1 -0.2	10.2	1894.1 -6.1
123 1000 0101	1881.88	1915.9 0.1 0.1	25.9	1911.9 4.0
124 1000 0100	1897.50	1933.4 0.1 0.1	17.4	1922.8 5.6
125 1000 0011	1913.13	1945.5 -0.0 0.2	12.2	1943.6 1.9
126 1000 0010	1928.75	1958.3 -0.1 -0.2	12.8	1959.1 -1.1
127 1000 0001	1944.38	1981.4 -0.1 -0.1	23.1	1975.3 6.1
128 1000 0000	1960.00	1989.6 0.0 0.0	8.2	1991.2 -1.5
129 0111 1111	1975.63	2002.9 0.1 0.1	13.3	2007.0 -4.1
130 0111 1110	1991.25	2011.7 -0.2 0.0	8.8	2022.8 -11.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 124
 1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B AND THRESHOLD TEST (BAND= 1, SENSOR=1)

NO 10 81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
		NOMINAL	LEVELS RATIO= 1:1 LOWER	UPPER		POINT	DEVIATION	
131	0111 1101	2006.88	2039.3	-0.1	-0.1	27.6	2038.7	0.6
132	0111 1100	2022.50	2051.7	0.1	0.1	12.3	2054.5	-2.2
133	0111 1011	2038.13	2069.8	0.1	0.2	18.1	2070.4	-0.6
134	0111 1010	2053.75	2080.3	0.3	0.1	10.5	2086.2	-6.0
135	0111 1001	2069.38	2104.8	-0.1	-0.0	24.5	2102.1	2.7
136	0111 1000	2085.00	2108.1	-0.1	-0.1	3.4	2112.9	-9.8
137	0111 0111	2100.63	2129.8	0.1	-0.1	21.7	2133.8	-3.9
138	0111 0110	2116.25	2140.4	0.1	0.0	10.5	2149.6	-9.3
139	0111 0101	2131.88	2165.7	-0.0	-0.2	25.3	2165.5	0.2
140	0111 0100	2147.50	2182.4	-0.1	-0.0	16.7	2181.3	1.1
141	0111 0011	2163.13	2196.8	-0.2	-0.1	14.4	2192.2	-0.4
142	0111 0010	2178.75	2209.9	0.2	0.1	13.1	2213.0	-3.1
143	0111 0001	2194.38	2231.6	0.1	0.0	21.7	2228.9	2.8
144	0111 0000	2210.00	2241.8	0.0	-0.1	10.2	2241.2	-2.2
145	0110 1111	2225.63	2255.9	-0.1	-0.1	14.1	2248.6	-4.6
146	0110 1110	2241.25	2264.9	0.1	0.0	8.9	2276.4	-11.1
147	0110 1101	2256.88	2292.4	0.0	-0.0	27.5	2292.2	0.1
148	0110 1100	2272.50	2307.8	0.0	0.0	15.4	2308.1	-0.3
149	0110 1011	2288.13	2322.8	-0.2	-0.0	15.0	2323.9	-1.1
150	0110 1010	2303.75	2334.1	-0.1	-0.0	11.3	2339.8	-0.7
151	0110 1001	2319.38	2357.8	-0.1	-0.1	23.7	2355.6	2.2
152	0110 1000	2335.00	2363.5	0.0	0.1	5.8	2371.5	-7.9
153	0110 0111	2350.63	2382.5	0.0	0.2	19.0	2382.3	-4.8
154	0110 0110	2366.25	2393.4	0.0	0.1	10.8	2403.2	-9.8
155	0110 0101	2381.88	2418.4	0.1	0.0	25.1	2419.0	-0.6
156	0110 0100	2397.50	2438.1	0.0	0.0	19.6	2434.9	3.2
157	0110 0011	2413.13	2449.3	0.1	0.1	11.2	2450.2	-1.4

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 125

1981/11/30 10:34:09 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

24.11.30.10.34.09 AND THRESHOLD TEST CHANNEL 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

HAC
TEST
527

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	DIGITAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
158	0110 0010	2428.75	2463.6	-0.1	-0.0	14.3	2463.6	-2.9
159	0110 0001	2444.38	2484.3	-0.1	-0.0	20.6	2484.3	1.9
160	0110 0000	2460.00	2488.7	0.0	-0.0	4.4	2488.7	-9.7
161	0101 1111	2475.63	2508.1	0.1	0.1	19.4	2508.1	-6.0
162	0101 1110	2491.25	2516.4	0.1	1.0	8.3	2516.4	-13.1
163	0101 1101	2506.88	2545.0	0.0	0.0	28.6	2545.0	-0.8
164	0101 1100	2522.50	2557.2	-0.0	0.0	12.2	2557.2	-4.4
165	0101 1011	2538.13	2575.0	0.1	0.1	17.8	2575.0	-0.5
166	0101 1010	2553.75	2585.0	-0.1	0.0	10.0	2585.0	-4.1
167	0101 1001	2569.38	2610.4	0.1	-0.2	25.4	2610.4	1.2
168	0101 1000	2585.00	2616.0	-0.2	-1.9	5.6	2616.0	-9.0
169	0101 0111	2600.63	2635.1	-0.1	-0.0	19.1	2635.1	-1.8
170	0101 0110	2616.25	2645.0	0.1	0.1	9.9	2645.0	-1.7
171	0101 0101	2631.88	2671.3	0.0	0.0	26.3	2671.3	-1.2
172	0101 0100	2647.50	2687.8	0.1	0.0	16.5	2687.8	-0.5
173	0101 0011	2663.13	2707.0	-0.0	-0.0	14.2	2707.0	-2.3
174	0101 0010	2678.75	2714.8	0.0	-0.0	17.8	2714.8	-1.3
175	0101 0001	2694.38	2736.9	-0.0	-0.0	22.1	2736.9	1.0
176	0101 0000	2710.00	2751.0	-0.0	-0.0	14.1	2751.0	-0.8
177	0100 1111	2725.63	2761.1	-0.0	0.0	10.1	2761.1	-6.1
178	0100 1110	2741.25	2769.6	0.0	0.1	8.4	2769.6	-13.9
179	0100 1101	2756.88	2798.1	-0.1	-0.1	28.6	2798.1	-1.2
180	0100 1100	2772.50	2813.5	-0.0	0.0	15.4	2813.5	-1.6
181	0100 1011	2788.13	2827.9	-0.1	0.1	14.4	2827.9	-3.1
182	0100 1010	2803.75	2838.8	-0.0	-0.1	10.8	2838.8	-8.1
183	0100 1001	2819.38	2863.4	0.1	-0.0	24.6	2863.4	0.2

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HS-206 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 126

1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (RANDOM) - 1 - REPEATABLE - 1



BY 30 71

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
184	0100 1000	2835.00	2872.8	-0.1	0.0	9.4	2878.6	-5.8
185	0100 0111	2850.63	2887.9	0.1	0.0	15.1	2894.4	-6.5
186	0100 0110	2846.25	2898.3	0.0	0.0	10.3	2910.3	-12.0
187	0100 0101	2881.88	2924.6	-0.1	-0.1	26.3	2926.1	-1.5
188	0100 0100	2897.50	2943.7	-0.0	0.1	19.1	2942.0	1.7
189	0100 0011	2913.13	2955.0	0.0	0.1	11.2	2957.8	-2.8
190	0100 0010	2928.75	2968.4	-0.0	0.0	13.4	2971.7	-1.3
191	0100 0001	2944.38	2990.1	-0.0	-0.1	21.7	2989.5	0.6
192	0100 0000	2960.00	3005.8	-0.1	0.1	15.7	3001.3	0.5
193	0011 1111	2975.63	3016.6	0.1	-0.0	10.8	3021.2	-4.6
194	0011 1110	2991.25	3027.4	-0.1	-0.1	10.8	3037.0	-9.5
195	0011 1101	3006.88	3054.3	0.0	0.0	26.9	3057.9	1.4
196	0011 1100	3022.50	3065.6	0.0	0.1	11.3	3068.7	-3.2
197	0011 1011	3038.13	3084.3	0.0	0.1	18.8	3084.6	-6.2
198	0011 1010	3053.75	3093.8	-0.1	-0.1	9.5	3100.4	-6.5
199	0011 1001	3069.38	3120.0	-0.1	0.0	26.1	3116.3	3.7
200	0011 1000	3085.00	3122.1	-0.1	-0.1	2.1	3132.1	-10.1
201	0011 0111	3100.63	3144.7	0.0	0.0	22.6	3148.0	-3.3
202	0011 0110	3116.25	3154.6	-0.1	0.0	9.9	3153.8	-9.2
203	0011 0101	3131.88	3181.5	-0.0	-0.1	26.9	3179.7	1.8
204	0011 0100	3147.50	3196.8	-0.0	0.0	15.3	3195.5	1.2
205	0011 0011	3163.13	3212.3	-0.1	0.0	15.5	3211.4	0.9
206	0011 0010	3178.75	3224.6	0.0	0.0	12.3	3227.2	-2.4
207	0011 0001	3194.38	3247.5	-0.1	-0.0	22.9	3244.0	4.4
208	0011 0000	3210.00	3260.2	-0.0	0.0	12.8	3251.9	1.5
209	0010 1111	3225.63	3271.7	0.0	0.0	11.4	3274.7	-3.1

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OF POOR QUALITY

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 127

1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-7-14-5-4-1 A/D THRESHOLD TEST (RANGE = 1, 10, 100, 1000, 10000)



REV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	DIGITAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3280.2	0.0	-0.1	8.4	3290.4	-10.4
211	0010 1101	3256.88	3309.2	-0.1	0.0	29.0	3305.4	2.8
212	0010 1100	3272.50	3323.0	0.0	0.1	13.8	3322.3	0.7
213	0010 1011	3288.13	3339.2	0.0	0.0	16.2	3338.1	1.0
214	0010 1010	3303.75	3349.6	-0.1	-0.0	10.4	3354.0	-4.4
215	0010 1001	3319.38	3375.3	-0.1	0.1	25.7	3369.8	5.5
216	0010 1000	3335.00	3380.5	-0.0	0.0	5.2	3385.7	-1.7
217	0010 0111	3350.63	3399.0	-0.1	0.1	19.2	3401.5	-1.8
218	0010 0110	3366.25	3409.9	-0.1	0.0	10.2	3417.4	-7.7
219	0010 0101	3381.88	3436.8	-0.1	-0.1	26.9	3433.2	3.6
220	0010 0100	3397.50	3455.3	-0.0	0.0	18.5	3449.1	6.3
221	0010 0011	3413.13	3467.5	0.0	0.0	12.2	3464.9	2.7
222	0010 0010	3428.75	3480.6	-0.0	0.0	13.0	3480.7	-0.2
223	0010 0001	3444.38	3503.1	-0.2	-0.1	22.5	3496.6	6.5
224	0010 0000	3460.00	3510.5	-0.0	0.0	7.4	3512.4	-1.9
225	0001 1111	3475.63	3526.7	0.0	0.1	16.2	3528.3	-1.6
226	0001 1110	3491.25	3536.6	-0.0	0.0	9.9	3534.1	-7.5
227	0001 1101	3506.88	3564.0	-0.2	-0.1	28.1	3560.0	4.8
228	0001 1100	3522.50	3575.8	0.2	0.1	11.0	3575.8	-0.8
229	0001 1011	3538.13	3594.6	0.0	0.1	18.8	3591.7	7.9
230	0001 1010	3553.75	3603.7	0.0	0.0	9.1	3607.5	-1.6
231	0001 1001	3569.38	3631.4	-0.3	-0.2	27.7	3623.4	8.0
232	0001 1000	3585.00	3635.5	-0.1	0.0	4.1	3639.2	-3.7
233	0001 0111	3600.63	3655.5	-0.1	0.1	20.0	3655.1	0.4
234	0001 0110	3616.25	3645.1	0.1	0.1	9.4	3670.9	-15.8
235	0001 0101	3631.88	3693.1	-0.3	-0.1	28.0	3687.8	6.3
236	0001 0100	3647.50	3708.2	-0.1	0.0	15.1	3702.6	5.5

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL 11 FLT. S/N 3 PAGE 128

1981/11/30 10:34:09 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.113.5-8 A/D THRESHOLD TEST (RANGE 1 - 32768)



NO 30 81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3723.6	-0.1	0.1	15.4	3718.4	5.2
238	0001 0010	3678.75	3735.7	-0.0	-0.1	12.1	3734.1	1.4
239	0001 0001	3694.38	3759.5	0.1	0.1	23.8	3750.1	9.4
240	0001 0000	3710.00	3776.0	-0.2	-0.0	16.5	3766.0	10.0
241	0000 1111	3725.63	3783.7	-0.1	-0.1	7.7	3781.8	1.9
242	0000 1110	3741.25	3791.8	1.4	0.0	8.1	3797.7	-5.5
243	0000 1101	3756.88	3821.7	-0.1	0.1	29.9	3813.5	8.2
244	0000 1100	3772.50	3836.1	-0.0	0.2	14.3	3839.4	5.7
245	0000 1011	3788.13	3851.7	-0.1	-0.0	15.6	3845.2	6.4
246	0000 1010	3803.75	3861.7	0.0	-0.1	10.0	3861.1	0.6
247	0000 1001	3819.38	3888.6	-0.1	0.2	26.9	3877.9	11.7
248	0000 1000	3835.00	3897.2	0.0	0.1	8.6	3892.8	4.4
249	0000 0111	3850.63	3912.9	-0.2	0.0	15.7	3908.6	4.3
250	0000 0110	3866.25	3922.8	-0.2	-0.1	9.8	3924.5	-1.7
251	0000 0101	3881.88	3950.6	-0.2	-0.1	27.8	3940.3	10.3
252	0000 0100	3897.50	3968.3	-0.0	0.2	17.7	3966.2	12.1
253	0000 0011	3913.13	3981.1	-0.0	0.1	12.8	3972.0	2.1
254	0000 0010	3928.75	3993.8	-0.2	-0.0	12.7	3987.8	6.0
255	0000 0001	3944.38	4017.1	-0.3	-0.1	21.3	4003.7	12.4

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-206 THEMATIC MAPPER MUX UNIT TEST MODEL.. FIT. S/N 3 PAGE 129

31/11/80 10:40:33 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

5.3.5-4 AND THRESHOLD TEST (BAND= 1, SENSOR= 4)
SUMMARY



10.30.81

OK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.808X - 39.810$

DEVIATION OF SLOPE FROM IDEAL IS: 1.173%

OFFSET IS: -39.810

COEFFICIENT OF DETERMINATION IS: $R^2 = .99997880$

ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 5.213MV REQMT: RMS ERROR <= 7.813MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
28.1MV	163	15.879MV	1.7MV	32	6.657MV

POWER LIMIT AT OUTPUT LEVELS RATIO = 1 11

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.3MV	225	-0.022MV	-0.4MV	251	.113MV

POWER LIMIT AT OUTPUT LEVELS RATIO = 1 11

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.7MV	213	0.008MV	-0.3MV	246	.129MV

TEST PASSED

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HS-236 THEMATIC MATTER MUX UNIT TEST MODEL . . FLT. S/N 3 PAGE 130

1981/11/30 10:40:47 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 AND THRESHOLD TEST (RAND = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV	BEST FIT STRAIGHT LINE	
			LEVELS RATIO	1 : 1				
			NOMINAL	LOWER	UPPER	THRESHOLD	POINT	IS REALIZED

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111	1111	-24.375	-28.4	-0.0	-0.0	-24.0	-4.0
2	1111	1110	-8.750	-19.3	0.0	0.0	-9.2	-11.1
3	1111	1101	6.875	7.3	-0.1	0.0	7.7	-0.3
4	1111	1100	22.500	19.5	-0.1	-0.0	12.7	-3.9
5	1111	1011	38.125	38.2	-0.0	0.1	18.6	-1.1
6	1111	1010	53.750	48.8	0.0	0.1	10.6	-5.3
7	1111	1001	69.375	74.0	-0.1	-0.0	25.2	3.1
8	1111	1000	85.000	77.0	-0.1	-0.1	3.0	-8.7
9	1111	0111	100.625	99.4	-0.1	-0.1	22.3	-3.1
10	1111	0110	116.250	110.8	-0.1	-0.1	11.4	-7.1
11	1111	0101	131.875	135.1	-0.0	-0.0	24.4	1.0
12	1111	0100	147.500	150.6	-0.0	0.0	15.4	0.6
13	1111	0011	163.125	165.9	0.0	0.1	15.3	0.1
14	1111	0010	178.750	179.6	-0.2	-0.1	13.7	-1.9
15	1111	0001	194.375	201.9	-0.1	0.0	22.3	4.5
16	1111	0000	210.000	211.3	0.0	0.1	9.4	-1.3
17	1110	1111	225.625	226.9	-0.0	-0.1	15.6	-2.0
18	1110	1110	241.250	236.4	-0.1	-0.0	9.4	-8.4
19	1110	1101	256.875	262.7	-0.2	0.0	26.3	7.1
20	1110	1100	272.500	277.8	-0.0	0.0	15.1	1.5
21	1110	1011	288.125	293.5	-0.1	-0.0	15.6	1.3
22	1110	1010	303.750	304.8	-0.1	0.0	11.1	-3.2
23	1110	1001	319.375	329.3	-0.1	0.0	24.4	5.4
24	1110	1000	335.000	335.6	0.0	0.0	6.3	-4.1
25	1110	0111	350.625	354.5	-0.1	-0.0	18.9	0.9

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FI 1. S/N 3 PAGE 131

1981/11/30 10:40:42 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

3-THRESHOLD AND THRESHOLD TEST CRITERIA = 1 - SENSE 11-2-78 1 NOV 30 '81



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	366.1	0.1	0.0	11.6	371.2	-5.2
27	1110 0101	381.875	390.2	0.0	0.2	24.1	387.1	-5.1
28	1110 0100	397.500	408.7	0.0	0.0	18.5	402.9	-5.4
29	1110 0011	413.125	420.9	-0.0	0.1	12.2	418.7	-5.2
30	1110 0010	428.750	434.8	-0.1	0.0	13.9	434.5	-5.4
31	1110 0001	444.375	456.7	0.1	0.1	21.9	450.3	-6.4
32	1110 0000	460.000	458.4	-0.1	-0.0	1.7	456.1	-3.7
33	1101 1111	475.625	481.1	0.0	0.2	22.7	481.9	-6.8
34	1101 1110	491.250	489.9	0.0	-0.0	8.8	497.7	-6.8
35	1101 1101	506.875	517.1	-0.1	0.1	27.2	513.5	-6.6
36	1101 1100	522.500	529.2	0.0	0.1	12.1	529.3	-6.8
37	1101 1011	538.125	547.7	-0.0	0.0	18.4	545.1	-6.9
38	1101 1010	553.750	557.8	-0.1	-0.1	10.2	560.9	-7.1
39	1101 1001	569.375	583.5	-0.0	-0.1	25.7	576.8	-7.4
40	1101 1000	585.000	588.5	0.1	0.0	5.0	592.6	-7.6
41	1101 0111	600.625	608.5	0.0	0.1	19.9	608.4	-7.7
42	1101 0110	616.250	619.4	-0.0	0.0	10.9	624.2	-7.9
43	1101 0101	631.875	644.4	-0.1	-0.1	25.0	640.0	-8.1
44	1101 0100	647.500	659.9	-0.0	0.0	15.4	655.8	-8.3
45	1101 0011	663.125	674.7	0.1	-0.0	14.8	671.5	-8.4
46	1101 0010	678.750	687.9	0.0	0.0	13.2	687.4	-8.6
47	1101 0001	694.375	710.5	-0.1	0.0	22.6	703.2	-8.8
48	1101 0000	710.000	723.7	0.1	0.0	13.2	719.0	-9.0
49	1100 1111	725.625	735.4	-0.2	0.0	11.7	734.8	-9.2
50	1100 1110	741.250	744.3	-0.0	-0.1	8.8	750.6	-9.4
51	1100 1101	756.875	771.2	-0.0	0.0	26.9	766.1	-9.2

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H5-216 THEMATIC MAPPER MIX UNIT TEST MODEL... FLT. S/N 3 PAGE 132

1981/11/30 10:40:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.0-3.5-B A/D THRESHOLD TEST (RANGE 1) SENSITIVITY



10 30 81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	786.3	-0.0	0.0	15.1	782.3	4.6
53	1100 1011	788.125	801.3	-0.1	-0.0	15.0	798.1	3.3
54	1100 1010	803.750	812.2	0.0	0.1	10.9	813.9	-1.7
55	1100 1001	819.375	837.1	0.0	0.0	24.9	839.7	7.4
56	1100 1000	835.000	846.6	-0.0	0.0	9.5	846.5	1.1
57	1100 0111	850.625	862.0	-0.0	0.0	15.4	861.3	0.7
58	1100 0110	864.250	873.0	-0.0	-0.0	11.0	877.1	-4.1
59	1100 0101	881.875	897.6	0.2	0.0	24.0	897.9	4.7
60	1100 0100	897.500	916.0	0.0	0.1	18.4	908.7	7.1
61	1100 0011	913.125	927.6	-0.0	0.0	11.6	924.5	1.1
62	1100 0010	928.750	941.1	0.0	0.1	13.5	948.3	0.8
63	1100 0001	944.375	963.4	-0.1	-0.0	22.3	966.2	7.3
64	1100 0000	960.000	975.2	-0.1	-0.1	11.8	977.0	3.3
65	1011 1111	975.625	990.8	0.1	0.0	15.5	987.8	3.0
66	1011 1110	991.250	999.1	0.1	0.1	8.3	1003.6	-4.5
67	1011 1101	1006.88	1026.6	-0.1	-0.0	27.5	1019.4	7.2
68	1011 1100	1022.50	1037.7	-0.0	-0.1	11.1	1039.2	2.5
69	1011 1011	1038.13	1056.9	0.1	0.1	19.2	1051.0	1.9
70	1011 1010	1054.75	1066.4	0.0	-0.0	9.5	1064.2	-0.4
71	1011 1001	1069.38	1092.3	-0.0	-0.1	25.9	1087.6	9.7
72	1011 1000	1085.00	1094.4	0.0	0.0	2.1	1098.4	-4.1
73	1011 0111	1100.63	1117.1	0.1	0.0	22.7	1114.2	2.8
74	1011 0110	1116.25	1127.6	-0.0	-0.0	10.5	1130.0	-2.4
75	1011 0101	1131.88	1152.7	-0.0	0.0	25.1	1145.9	6.8
76	1011 0100	1147.50	1167.3	0.1	-0.0	14.6	1151.7	1.6
77	1011 0011	1163.13	1183.2	-0.0	-0.0	15.9	1177.5	5.8
78	1011 0010	1178.75	1195.4	0.0	-0.0	12.2	1193.3	2.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 133
 1981/11/30 10:40:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (RANGE= 1.0 SENSOR=4)



BY 30 81

THRESHOLD A/D OUTPUT	IDEAL	ANALOG INPUT VOLTAGE (MV)			INCREASE	BEST FIT STRAIGHT LINE	
NUMBER THRESHOLD	VALUE	LEVELS RATIO= 1 : 1			FROM PREV	POINT	DEVIATION
	(MV)	NOMINAL	LOWER	UPPER	THRESHOLD		
79 1011 0001	1194.38	1218.4	-0.0	0.0	23.0	1209.1	9.3
80 1011 0000	1210.00	1230.7	0.0	0.0	12.3	1224.9	5.8
81 1010 1111	1225.63	1243.1	0.0	-0.0	12.4	1240.7	2.4
82 1010 1110	1241.25	1251.6	0.0	-0.0	8.5	1256.5	-4.9
83 1010 1101	1256.88	1278.9	0.1	0.0	27.3	1272.3	6.6
84 1010 1100	1272.50	1293.0	0.0	0.0	14.0	1288.1	4.8
85 1010 1011	1288.13	1309.1	-0.0	-0.1	16.7	1303.9	5.2
86 1010 1010	1303.75	1319.4	0.0	-0.0	10.2	1319.7	-0.4
87 1010 1001	1319.38	1344.5	0.0	-0.1	25.1	1335.6	8.9
88 1010 1000	1335.00	1350.6	0.0	0.0	6.1	1351.4	-0.8
89 1010 0111	1350.63	1369.2	-0.0	0.0	18.6	1367.2	2.0
90 1010 0110	1366.25	1379.8	0.1	0.0	10.6	1373.8	-3.2
91 1010 0101	1381.88	1405.0	-0.1	-0.0	23.2	1398.8	6.2
92 1010 0100	1397.50	1422.5	-0.1	0.0	17.5	1414.6	7.2
93 1010 0011	1413.13	1435.1	0.0	0.1	12.6	1430.4	4.7
94 1010 0010	1428.75	1447.8	0.0	-0.1	12.6	1446.2	1.6
95 1010 0001	1444.38	1470.5	-0.0	-0.0	22.7	1462.0	8.4
96 1010 0000	1460.00	1477.2	0.0	0.0	6.7	1477.8	-0.5
97 1001 1111	1475.63	1494.6	-0.1	0.0	12.4	1491.6	1.0
98 1001 1110	1491.25	1502.6	-0.1	-0.1	7.9	1509.4	-6.2
99 1001 1101	1506.88	1530.6	0.0	0.0	28.0	1525.3	1.4
100 1001 1100	1522.50	1541.5	0.0	0.1	10.8	1541.1	0.1
101 1001 1011	1538.13	1560.6	0.0	0.0	19.1	1552.9	3.7
102 1001 1010	1553.75	1569.6	-0.0	0.0	9.0	1572.7	-3.1
103 1001 1001	1569.38	1596.1	0.1	0.1	26.5	1584.5	7.6
104 1001 1000	1585.00	1600.1	0.0	-0.0	4.0	1604.3	-4.2

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 134

1981/11/30 10:40:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.5-A/D THRESHOLD TEST (RANGE 1) DEFERRAL

HAC
TEST
S27

12/30/81

THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
105	1001 0111	1600.53	1620.7	0.0	0.0	1620.1	0.6
106	1001 0110	1616.25	1630.7	-0.0	0.0	1630.9	-1.2
107	1001 0101	1631.88	1656.7	-0.0	-0.2	1651.7	5.0
108	1001 0100	1647.50	1671.1	-0.0	0.0	1667.5	3.4
109	1001 0011	1663.13	1686.8	-0.0	0.0	1683.3	3.4
110	1001 0010	1678.75	1698.5	0.0	-0.1	1699.1	-0.6
111	1001 0001	1694.38	1722.1	-0.1	0.0	1715.0	7.1
112	1001 0000	1710.00	1737.8	0.1	-0.0	1730.8	7.0
113	1000 1111	1725.63	1746.7	0.0	-0.0	1746.6	0.1
114	1000 1110	1741.25	1754.8	0.0	-0.1	1752.4	-7.6
115	1000 1101	1756.88	1782.8	0.0	-0.0	1778.2	4.6
116	1000 1100	1772.50	1796.6	-0.0	0.0	1794.0	2.6
117	1000 1011	1788.13	1812.5	-0.1	-0.0	1809.8	2.7
118	1000 1010	1803.75	1822.3	-0.1	0.0	1825.6	-3.3
119	1000 1001	1819.38	1848.3	-0.0	0.0	1841.4	6.9
120	1000 1000	1835.00	1857.6	-0.0	-0.0	1857.2	0.4
121	1000 0111	1850.63	1872.6	-0.0	0.0	1873.0	-0.4
122	1000 0110	1866.25	1887.8	0.1	0.1	1881.8	-5.0
123	1000 0101	1881.88	1908.5	0.0	0.0	1904.7	3.9
124	1000 0100	1897.50	1926.0	0.0	0.0	1920.5	7.5
125	1000 0011	1913.13	1938.5	-0.0	0.0	1937.3	2.2
126	1000 0010	1928.75	1950.7	-0.0	-0.1	1952.1	-7.5
127	1000 0001	1944.38	1974.0	0.1	-0.1	1967.9	6.1
128	1000 0000	1960.00	1983.0	0.1	0.1	1981.7	-0.7
129	0111 1111	1975.63	1995.7	-0.1	0.1	1997.1	-1.8
130	0111 1110	1991.25	2004.4	-0.1	-0.1	2011.3	-10.9

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HS-236 THEMATIC MAPPER NUX UNIT TEST MODH... FLT. S/N 3 PAGE 1.36

1981/11/30 10:40:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-4 A/D THRESHOLD TEST (CONT) - 1.0 SENSORS - 4



NOV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2031.6	0.1	0.1	27.2	2031.1	0.5
132	0111 1100	2022.50	2044.0	0.1	0.1	12.3	2044.9	-3.0
133	0111 1011	2038.13	2062.4	0.1	0.0	18.4	2062.7	-0.4
134	0111 1010	2053.75	2072.4	-0.1	-0.2	10.0	2078.5	-6.2
135	0111 1001	2069.38	2097.1	-0.1	-0.1	24.7	2094.4	2.8
136	0111 1000	2085.00	2100.6	0.2	0.0	3.4	2110.2	-9.6
137	0111 0111	2100.63	2122.3	0.0	0.1	21.8	2126.0	-3.6
138	0111 0110	2116.25	2132.8	-0.1	-0.1	10.5	2141.8	-9.0
139	0111 0101	2131.88	2157.8	-0.1	-0.1	25.0	2157.6	0.2
140	0111 0100	2147.50	2173.8	0.1	-0.1	15.9	2173.4	0.4
141	0111 0011	2163.13	2188.9	0.1	0.1	15.1	2189.2	-0.3
142	0111 0010	2178.75	2202.0	0.0	0.0	13.2	2205.0	-3.0
143	0111 0001	2194.38	2223.6	-0.1	0.0	21.5	2220.8	2.8
144	0111 0000	2210.00	2233.7	-0.1	-0.1	10.1	2236.6	-2.9
145	0110 1111	2225.63	2248.0	-0.0	0.0	14.3	2252.4	-4.4
146	0110 1110	2241.25	2256.9	0.2	0.1	8.9	2258.2	-11.3
147	0110 1101	2256.88	2284.1	0.1	0.1	27.1	2284.1	0.0
148	0110 1100	2272.50	2299.7	-0.1	-0.1	15.6	2299.9	-0.2
149	0110 1011	2288.13	2314.6	0.0	0.0	14.9	2315.7	-1.1
150	0110 1010	2303.75	2325.4	0.1	0.0	10.8	2331.5	-6.1
151	0110 1001	2319.38	2349.3	0.2	0.1	23.9	2347.3	2.1
152	0110 1000	2335.00	2355.0	-0.1	0.1	5.2	2351.1	-8.9
153	0110 0111	2350.63	2374.5	0.0	-0.0	19.4	2378.9	-4.4
154	0110 0110	2366.25	2385.1	-0.0	-0.1	10.7	2395.7	-9.5
155	0110 0101	2381.88	2410.1	0.1	-0.1	24.9	2410.1	-0.5
156	0110 0100	2397.50	2429.2	0.1	0.2	19.1	2426.3	2.8
157	0110 0011	2413.13	2441.1	-0.1	0.1	11.9	2432.1	-1.1

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H9-236 TH-MATIC MOPPER MUX UNIT TEST MODEL . . FLT. S/N 3 PAGE 117
 1981/11/30 10:40:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5-4.5--R A/D THRESHOLD TEST CHANNEL 1 DEFENSE



NO 30 16

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	LAST FTT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
184	0100 1000	2835.00	2862.9	0.1	0.1	8.9	2869.0	-4.0
185	0100 0111	2850.63	2878.6	-0.1	0.0	15.7	2884.8	-4.1
186	0100 0110	2866.75	2888.9	-0.1	-0.1	10.3	2900.6	-11.6
187	0100 0101	2881.88	2914.8	0.0	-0.1	25.8	2917.4	-1.6
188	0100 0100	2897.50	2933.7	0.3	0.2	18.9	2932.2	1.5
189	0100 0011	2913.13	2945.4	0.2	0.1	11.7	2948.0	-1.6
190	0100 0010	2928.75	2958.6	-0.2	-0.3	13.3	2967.8	-5.2
191	0100 0001	2944.38	2980.3	-0.2	-0.1	21.6	2979.6	0.7
192	0100 0000	2960.00	2995.9	0.3	0.0	15.6	2991.4	0.5
193	0011 1111	2975.63	3007.3	0.1	0.2	11.4	3011.2	-3.9
194	0011 1110	2991.25	3017.4	-0.1	0.1	10.1	3027.0	-9.4
195	0011 1101	3006.88	3044.1	-0.2	-0.1	26.6	3042.9	1.2
196	0011 1100	3022.50	3055.4	-0.1	-0.2	11.3	3071.7	-4.2
197	0011 1011	3038.13	3074.5	0.1	0.2	19.0	3074.5	-0.0
198	0011 1010	3053.75	3083.2	0.1	0.0	8.8	3090.3	-7.1
199	0011 1001	3069.38	3110.0	-0.0	0.0	26.8	3106.1	1.9
200	0011 1000	3085.00	3112.4	-0.2	-0.2	7.4	3121.9	-9.5
201	0011 0111	3100.63	3134.8	-0.1	-0.1	22.3	3127.7	-7.9
202	0011 0110	3116.25	3144.5	0.1	0.2	9.7	3153.5	-9.0
203	0011 0101	3131.88	3170.9	-0.1	0.1	26.4	3169.3	1.6
204	0011 0100	3147.50	3185.7	-0.2	-0.1	14.8	3175.1	0.6
205	0011 0011	3163.13	3202.1	-0.2	-0.0	16.3	3200.9	1.1
206	0011 0010	3178.75	3213.8	0.2	0.0	11.8	3216.2	-7.9
207	0011 0001	3194.38	3236.8	0.1	0.2	22.9	3242.6	4.2
208	0011 0000	3210.00	3249.6	-0.0	0.2	12.8	3258.4	1.2
209	0010 1111	3225.63	3261.4	-0.1	-0.1	11.8	3264.2	-7.8

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HS-206 THIRNATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 133
 1981/11/30 10:40:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 B-11-12-13-14 AND THRESHOLD TEST (PENALTY) - 1 - 14-15-16-17-18

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NO. 30 81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
210 0010 1110	3241.25	3272.1 -0.1 -0.2	10.7	3280.0 -7.3
211 0010 1101	3256.89	3298.1 0.1 0.2	25.9	3295.8 2.9
212 0010 1100	3272.50	3312.6 0.1 0.1	14.6	3311.6 1.9
213 0010 1011	3288.13	3328.8 -0.2 0.1	16.2	3327.4 1.4
214 0010 1010	3303.75	3338.6 -0.2 -0.2	9.7	3343.2 -4.6
215 0010 1001	3319.38	3364.5 -0.1 -0.1	26.0	3359.0 1.5
216 0010 1000	3335.00	3369.4 0.2 0.2	4.8	3374.8 1.5
217 0010 0111	3350.63	3389.0 0.2 0.2	19.6	3390.6 -1.7
218 0010 0110	3366.25	3399.3 -0.3 -0.1	10.3	3406.4 -7.2
219 0010 0101	3381.88	3425.7 -0.2 -0.3	26.4	3422.3 3.4
220 0010 0100	3397.50	3443.6 0.1 -0.1	17.9	3438.1 1.6
221 0010 0011	3413.13	3456.7 0.1 0.2	13.0	3453.9 2.8
222 0010 0010	3428.75	3469.2 -0.0 0.3	12.5	3469.7 -0.5
223 0010 0001	3444.38	3491.9 -0.3 -0.2	22.2	3485.5 4.4
224 0010 0000	3460.00	3499.8 -0.1 -0.2	7.9	3501.3 -1.5
225 0001 1111	3475.63	3515.6 0.2 0.2	15.8	3517.1 -1.5
226 0001 1110	3491.25	3525.2 0.3 0.2	9.6	3532.9 -7.7
227 0001 1101	3506.88	3553.0 -0.3 -0.0	27.8	3548.7 4.9
228 0001 1100	3522.50	3564.5 -0.3 -0.3	11.4	3565.5 -0.1
229 0001 1011	3538.13	3583.6 -0.1 -0.2	19.1	3580.3 1.9
230 0001 1010	3553.75	3591.8 0.1 0.2	8.2	3595.1 -4.6
231 0001 1001	3569.38	3619.7 -0.1 0.2	27.9	3611.0 1.7
232 0001 1000	3585.00	3624.9 -0.2 -0.2	5.2	3627.8 -2.9
233 0001 0111	3600.63	3644.2 -0.3 -0.1	19.6	3643.6 0.6
234 0001 0110	3616.25	3653.6 0.3 0.0	9.4	3659.4 -1.8
235 0001 0101	3631.88	3680.9 0.0 0.2	27.3	3675.7 1.7
236 0001 0100	3647.50	3695.7 -0.1 0.2	14.9	3691.0 4.2

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 149

1981/11/30 10:40:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-4 AND THRESHOLD TEST (RAND) 1. PENALTY 4

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TEST
S27

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS LOWER	RATIO= UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3712.2	-0.3	-0.2	16.5	3706.8	5.4
238	0001 0010	3678.75	3723.7	0.0	-0.2	11.5	3722.6	1.1
239	0001 0001	3694.38	3747.6	0.1	0.1	23.9	3738.4	9.2
240	0001 0000	3710.00	3763.9	0.1	0.2	16.3	3754.2	9.7
241	0000 1111	3725.63	3772.0	-0.3	-0.0	8.1	3770.0	2.0
242	0000 1110	3741.25	3782.1	-0.3	-0.2	10.1	3785.8	-1.7
243	0000 1101	3756.88	3809.3	-0.1	-0.1	27.1	3811.7	7.6
244	0000 1100	3772.50	3824.1	0.1	0.3	14.8	3817.5	6.5
245	0000 1011	3788.13	3839.3	-0.1	0.7	15.2	3853.3	6.0
246	0000 1010	3803.75	3849.4	-0.3	-0.3	10.1	3872.1	0.3
247	0000 1001	3819.38	3876.4	-0.3	-0.2	27.0	3864.9	11.5
248	0000 1000	3835.00	3885.0	0.2	-0.1	8.5	3880.7	4.3
249	0000 0111	3850.63	3900.6	0.1	0.2	15.7	3896.5	3.1
250	0000 0110	3866.25	3910.5	0.0	0.3	9.8	3912.3	-1.2
251	0000 0101	3881.88	3937.9	-0.4	-0.3	27.4	3928.1	9.7
252	0000 0100	3897.50	3956.2	-0.1	-0.2	18.3	3941.9	12.2
253	0000 0011	3913.13	3968.3	0.0	0.7	12.1	3959.7	3.6
254	0000 0010	3928.75	3981.0	0.2	0.2	12.7	3975.1	5.5
255	0000 0001	3944.38	4004.8	-0.2	0.1	23.7	3991.4	13.4

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 140

1981/11/30 10:42:10 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4.5.3.1.1 AND THRESHOLD TEST CHANNEL 1.1 DEFLECTION 1.1
SUMMARY

HAC
TEST
527

11/30/81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 +/- THRESH INC +/- 01.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 37.144X - 36.145$

DEVIATION OF SLOPE FROM IDEAL IS: 1.414%

OFFSET IS: -36.1MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998110$

ANALOG INPUT DURING DC RESTORE IS: 64.0MV

RMS ERROR = 5.405MV REGRESSION RMS ERROR = 2.405MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
29.6MV	179	15.915MV	0.6MV	32	7.079MV
LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 1					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.8MV	59	-0.039MV	-1.7MV	83	.143MV
UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 1					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.3MV	19	-0.014MV	-1.9MV	179	.207MV

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TEST PASSED

HS-236 THERMAL MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 141

1981/11/30 10:47:24 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-4 A/D THRESHOLD TEST (RANGE= 1 SENSORS=2)

HAC
TEST
S27

NOV 30 '81

THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
		NOMINAL	LOWER	UPPER		

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-24.5	-0.4	0.1	-20.2	-2.2
2	1111 1110	-8.750	-16.2	-0.1	0.1	-4.4	-11.8
3	1111 1101	6.875	12.6	-0.1	-0.0	28.8	11.4
4	1111 1100	22.500	23.3	-0.0	0.0	10.7	22.3
5	1111 1011	38.125	42.4	-0.1	-0.0	19.1	35.1
6	1111 1010	53.750	52.3	-0.0	0.0	9.9	59.0
7	1111 1001	69.375	78.2	-0.0	0.0	25.8	74.8
8	1111 1000	85.000	81.0	0.0	0.1	2.8	90.7
9	1111 0111	100.625	103.7	-0.1	0.1	22.7	106.5
10	1111 0110	116.250	114.2	-0.1	-0.1	10.5	122.4
11	1111 0101	131.875	140.8	-0.1	-0.1	26.6	133.2
12	1111 0100	147.500	154.6	0.0	0.1	13.8	154.1
13	1111 0011	163.125	170.5	0.0	0.1	15.9	169.9
14	1111 0010	178.750	183.1	-0.2	-0.1	12.5	185.8
15	1111 0001	194.375	206.8	-0.2	-0.1	23.7	201.6
16	1111 0000	210.000	214.5	0.1	0.1	7.7	217.4
17	1110 1111	225.625	231.6	0.1	0.1	17.1	233.3
18	1110 1110	241.250	240.1	-0.0	-0.0	8.5	249.1
19	1110 1101	256.875	268.6	-0.1	-0.0	28.4	261.0
20	1110 1100	272.500	282.4	-0.0	-0.1	13.8	280.8
21	1110 1011	288.125	298.3	0.0	0.0	15.9	296.7
22	1110 1010	303.750	308.8	-0.0	0.0	10.6	312.5
23	1110 1001	319.375	334.1	-0.1	0.0	25.2	328.4
24	1110 1000	335.000	340.2	-0.1	-0.1	6.1	344.3
25	1110 0111	350.625	359.6	-0.1	-0.0	19.4	360.1

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HS-236 THMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 142
 1981/11/30 10:47:24 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
 32-11-11-11-11 AND THRESHOLD TEST CRAND- 1 10:47:24



THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LEVELS RATIO= 1:1 LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	370.3	0.0	0.1	371.9	-5.6
27	1110 0101	381.875	396.6	-0.1	0.0	391.7	-4.8
28	1110 0100	397.500	413.5	-0.2	-0.1	407.3	-5.7
29	1110 0011	413.125	426.3	-0.1	-0.1	423.4	-2.8
30	1110 0010	428.750	439.0	0.0	0.1	439.3	-0.6
31	1110 0001	444.375	462.2	0.0	0.1	457.1	-7.0
32	1110 0000	460.000	462.8	-0.1	0.1	471.0	-11.7
33	1101 1111	475.625	486.7	-0.2	-0.1	486.8	-0.1
34	1101 1110	491.250	494.4	-0.0	-0.1	502.7	-3.7
35	1101 1101	506.875	523.5	-0.0	0.0	518.5	-1.0
36	1101 1100	522.500	534.3	0.1	0.2	544.4	-0.1
37	1101 1011	538.125	553.7	-0.2	-0.1	560.2	-3.8
38	1101 1010	553.750	562.5	-0.1	0.0	566.1	-3.6
39	1101 1001	569.375	588.7	0.1	0.1	581.9	-6.8
40	1101 1000	585.000	593.8	0.1	0.1	597.7	-4.9
41	1101 0111	600.625	614.2	-0.1	0.0	614.6	0.6
42	1101 0110	616.250	624.2	-0.1	-0.1	629.4	-5.2
43	1101 0101	631.875	651.2	-0.0	-0.3	641.3	-1.9
44	1101 0100	647.500	665.2	0.1	0.1	661.1	-4.1
45	1101 0011	663.125	680.6	0.1	0.2	677.0	-1.6
46	1101 0010	678.750	692.7	-0.1	0.0	692.3	-0.1
47	1101 0001	694.375	716.3	-0.2	-0.1	708.7	-2.7
48	1101 0000	710.000	728.1	-0.0	-0.2	724.7	-3.7
49	1100 1111	725.625	741.2	0.2	0.1	740.4	0.9
50	1100 1110	741.250	749.3	0.1	0.1	754.2	-3.7
51	1100 1101	756.875	778.0	-0.1	0.0	772.0	-6.0

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 143
 1981/11/30 10:47:24 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.11.13.53-13 AND THRESHOLD TEST (RAND= 1.0 SENSIT=2



23081

THRESHOLD NUMBER	A/D THRESHOLD	OUTPUT THRESHOLD	DIGITAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
				NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100	1100	772.500	792.0	-0.1	-0.1	13.9	787.9	4.1
53	1100	1011	788.125	807.5	0.0	0.0	19.5	803.7	3.7
54	1100	1010	803.750	817.4	0.0	0.1	9.9	819.3	-2.2
55	1100	1001	819.375	843.0	0.0	0.1	25.6	835.4	7.6
56	1100	1000	835.000	852.4	-0.2	-0.1	9.4	851.3	1.1
57	1100	0111	850.625	868.2	0.0	-0.1	17.8	867.1	1.1
58	1100	0110	866.250	878.4	0.0	0.0	10.2	887.0	-3.5
59	1100	0101	881.875	903.6	0.8	1.3	21.2	898.8	4.8
60	1100	0100	897.500	922.0	-0.1	-0.0	18.1	914.7	7.3
61	1100	0011	913.125	934.3	-0.1	-0.1	12.3	930.5	3.8
62	1100	0010	928.750	946.6	-0.1	-0.1	12.3	946.4	0.3
63	1100	0001	944.375	969.7	0.0	0.1	23.1	962.2	7.5
64	1100	0000	960.000	979.9	0.3	0.2	10.1	978.0	1.8
65	1011	1111	975.625	997.1	-0.1	0.0	12.2	993.9	3.2
66	1011	1110	991.250	1004.8	-0.1	-0.1	7.7	1009.7	-4.9
67	1011	1101	1006.88	1032.6	-0.1	-0.1	27.8	1025.6	7.0
68	1011	1100	1022.50	1043.7	0.2	0.2	11.1	1051.4	2.3
69	1011	1011	1038.13	1063.4	0.1	0.1	19.7	1057.3	5.1
70	1011	1010	1051.75	1072.1	0.1	0.1	8.7	1073.1	-1.3
71	1011	1001	1069.38	1098.7	-0.1	-0.1	26.6	1089.0	9.7
72	1011	1000	1085.00	1100.8	0.1	0.2	2.2	1103.1	-4.5
73	1011	0111	1100.63	1123.8	0.1	0.1	22.9	1120.2	3.1
74	1011	0110	1116.25	1133.5	-0.0	0.1	9.7	1135.5	1
75	1011	0101	1131.88	1159.1	-0.1	-0.1	25.6	1152.4	6.8
76	1011	0100	1147.50	1173.9	0.0	0.0	14.8	1163.2	9.3
77	1011	0011	1163.13	1190.1	0.0	0.1	16.2	1184.0	6.3
78	1011	0010	1178.75	1201.4	0.1	0.1	11.3	1199.9	1.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL 11 FLT. S/N 3 PAGE 118

1981/11/30 10:47:24 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

4.17.11.11-4 AND THRESHOLD TEST (PENDING) 11/30/81



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO- LOWER	1:1 UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1225.8	-0.4	-0.6	24.4	1215.7	10.1
80	1011 0000	1210.00	1236.5	-0.2	-0.2	10.6	1231.6	4.9
81	1010 1111	1225.63	1250.1	0.1	0.0	13.6	1247.4	2.7
82	1010 1110	1241.25	1257.9	0.0	0.0	7.8	1241.9	-0.3
83	1010 1101	1256.88	1287.1	-1.7	-1.6	29.1	1229.1	7.9
84	1010 1100	1272.50	1299.8	-0.2	-0.1	12.7	1295.0	4.8
85	1010 1011	1288.13	1316.3	-0.1	-0.1	16.5	1310.3	0.5
86	1010 1010	1303.75	1325.9	0.0	-0.1	9.5	1315.2	-0.3
87	1010 1001	1319.38	1351.4	0.1	0.1	25.5	1342.5	8.9
88	1010 1000	1335.00	1357.5	-0.1	0.0	6.1	1353.3	-0.8
89	1010 0111	1350.63	1376.6	-0.1	-0.1	19.1	1374.2	2.4
90	1010 0110	1366.25	1386.4	0.1	-0.0	9.8	1390.0	-3.5
91	1010 0101	1381.88	1411.8	0.1	0.0	25.4	1405.9	5.9
92	1010 0100	1397.50	1429.6	0.1	0.2	17.8	1421.7	7.9
93	1010 0011	1413.13	1442.7	-0.0	-0.0	13.1	1437.4	5.2
94	1010 0010	1428.75	1454.5	-0.1	-0.1	11.8	1453.4	1.1
95	1010 0001	1444.38	1477.8	0.2	-0.0	23.3	1449.3	8.6
96	1010 0000	1460.00	1484.5	0.2	0.3	6.6	1480.1	-0.6
97	1001 1111	1475.63	1502.1	0.0	0.0	17.6	1501.0	1.2
98	1001 1110	1491.25	1509.3	0.1	-0.0	7.1	1516.8	-7.5
99	1001 1101	1506.88	1537.6	0.0	-0.1	28.3	1522.7	4.9
100	1001 1100	1522.50	1548.8	0.1	0.1	11.3	1543.5	0.5
101	1001 1011	1538.13	1568.2	0.1	0.0	19.4	1561.3	3.9
102	1001 1010	1553.75	1576.7	0.0	0.1	8.4	1580.2	-3.5
103	1001 1001	1569.38	1603.7	-0.1	-0.1	27.0	1595.6	1.6
104	1001 1000	1585.00	1607.8	-0.1	-0.1	4.1	1611.9	-1.1

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TRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE LEVELS RATIO=		INCREASE FROM TRIV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER		POINT	DEVIATION
105	1001 0111	1600.63	1678.6	0.1	0.0	1627.7	0.8
106	1001 0110	1616.25	1637.9	-0.1	0.1	1649.6	-1.7
107	1001 0101	1631.88	1664.0	-0.0	0.0	1659.4	4.6
108	1001 0100	1647.50	1679.0	-0.1	-0.1	1675.3	3.7
109	1001 0011	1663.13	1694.8	0.1	0.0	1691.1	3.7
110	1001 0010	1678.75	1705.9	-0.1	0.0	1707.0	-1.0
111	1001 0001	1694.38	1730.0	-0.0	0.0	1722.8	7.2
112	1001 0000	1710.00	1744.6	-0.1	-0.1	1738.6	6.0
113	1000 1111	1725.63	1754.9	0.1	-0.0	1754.5	0.4
114	1000 1110	1741.25	1762.2	0.0	0.0	1770.3	-8.1
115	1000 1101	1756.88	1790.3	0.0	0.0	1785.2	4.1
116	1000 1100	1772.50	1804.5	-0.1	0.0	1802.0	2.5
117	1000 1011	1788.13	1820.9	-0.1	-0.1	1817.9	3.0
118	1000 1010	1803.75	1830.0	0.2	0.0	1833.7	-3.7
119	1000 1001	1819.38	1856.3	0.1	0.0	1849.6	6.7
120	1000 1000	1835.00	1865.4	0.1	0.1	1859.4	0.0
121	1000 0111	1850.63	1881.2	-0.1	-0.1	1881.3	-0.0
122	1000 0110	1866.25	1890.6	-0.1	0.0	1892.1	-6.5
123	1000 0101	1881.88	1916.6	0.0	0.0	1914.0	3.6
124	1000 0100	1897.50	1934.2	0.0	0.1	1931.8	5.9
125	1000 0011	1913.13	1947.1	-0.0	0.0	1944.6	2.5
126	1000 0010	1928.75	1958.6	-0.1	-0.1	1950.5	-1.9
127	1000 0001	1944.38	1982.5	-0.0	0.0	1976.3	8.2
128	1000 0000	1960.00	1990.7	0.1	0.1	1992.2	-1.4
129	0111 1111	1975.63	2004.3	0.0	0.0	2002.0	-1.7
130	0111 1110	1991.25	2012.4	-0.1	-0.1	2011.9	-1.4

HS-236 THERMAL MAPPER MIX UNIT TEST MODEL... FIT. S/N 3 PAGE 145
 1981/11/30 10:47:24 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-14 AND THRESHOLD TEST (PANEL 1) REFERENCE

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NO. 30 '81

THRESHOLD NUMBER	AND DIFFERENT THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREVIOUS THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2039.7	0.0	0.0	27.3	2039.7	-33.0
132	0111 1100	2022.50	2052.4	0.0	0.0	12.7	2052.4	-29.9
133	0111 1011	2038.13	2071.3	0.0	0.0	13.9	2071.4	-33.3
134	0111 1010	2053.75	2080.9	-0.0	-0.0	9.6	2080.9	-27.2
135	0111 1001	2069.38	2106.0	-0.1	-0.1	25.1	2106.1	-26.9
136	0111 1000	2085.00	2108.8	0.0	0.1	2.8	2118.7	-10.1
137	0111 0111	2100.63	2131.2	0.1	0.0	22.4	2131.8	-11.1
138	0111 0110	2116.25	2141.1	-0.0	0.0	5.8	2140.5	-0.7
139	0111 0101	2131.88	2166.3	0.0	0.0	25.2	2166.5	-0.2
140	0111 0100	2147.50	2182.8	-0.0	0.0	16.5	2182.3	-0.2
141	0111 0011	2163.13	2198.1	-0.1	-0.0	15.2	2198.2	-0.1
142	0111 0010	2178.75	2210.9	0.0	0.1	12.9	2214.3	-3.3
143	0111 0001	2194.38	2233.2	0.0	-0.1	22.3	2239.2	-5.3
144	0111 0000	2210.00	2241.7	-0.2	0.0	11.5	2245.2	-4.8
145	0110 1111	2225.63	2257.2	-0.0	-0.0	15.5	2251.4	-4.4
146	0110 1110	2241.25	2265.6	-0.1	-0.0	8.4	2272.4	-11.2
147	0110 1101	2256.88	2292.7	-0.0	-0.0	27.1	2293.3	-0.5
148	0110 1100	2272.50	2308.5	0.1	0.0	15.7	2309.1	-0.6
149	0110 1011	2288.13	2324.2	0.0	-0.0	15.7	2324.9	-0.7
150	0110 1010	2303.75	2334.6	0.0	0.0	10.4	2330.3	-5.5
151	0110 1001	2319.38	2358.8	-0.0	0.0	24.2	2359.2	-0.2
152	0110 1000	2335.00	2364.5	0.0	0.1	5.6	2372.1	-7.6
153	0110 0111	2350.63	2384.0	0.0	0.1	19.5	2385.3	-3.5
154	0110 0110	2366.25	2394.2	0.0	0.0	10.2	2404.2	-10.2
155	0110 0101	2381.88	2419.1	0.1	0.1	24.9	2420.0	-0.9
156	0110 0100	2397.50	2438.9	0.0	-0.0	19.8	2451.9	-12.9
157	0110 0011	2413.13	2450.8	-0.0	-0.0	11.9	2461.7	-10.9

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 197
1981/11/30 10:47:24 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
A/D THRESHOLD TEST (BAND = 1) REFERENCE = 2.3601

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDFAI VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
158	0110 0010	2428.75	2464.4 -0.1 -0.1	13.6	2467.6 -3.2
159	0110 0001	2444.38	2485.8 -0.0 0.0	21.4	2483.4 2.4
160	0110 0000	2460.00	2489.4 0.0 -0.1	3.6	2499.2 -9.9
161	0101 1111	2475.63	2509.5 0.0 0.0	20.1	2511.1 -5.6
162	0101 1110	2491.25	2517.3 0.0 -0.0	7.8	2530.9 -19.7
163	0101 1101	2506.88	2545.1 0.1 0.1	27.8	2546.8 -1.7
164	0101 1100	2522.50	2557.9 -0.1 -0.1	12.7	2562.6 -4.8
165	0101 1011	2538.13	2576.5 0.1 0.0	18.6	2578.5 -2.0
166	0101 1010	2553.75	2585.6 -0.1 0.0	9.2	2594.3 -8.7
167	0101 1001	2569.38	2611.4 0.0 -0.1	25.7	2610.2 1.2
168	0101 1000	2585.00	2617.5 -0.0 0.0	6.1	2634.0 -8.1
169	0101 0111	2600.63	2636.5 -0.1 -0.0	19.0	2641.9 -5.4
170	0101 0110	2616.25	2645.7 -0.1 0.0	9.2	2657.7 -12.0
171	0101 0101	2631.88	2671.8 -0.1 -0.1	26.0	2679.6 -1.8
172	0101 0100	2647.50	2688.3 0.1 -0.1	16.5	2689.4 -1.1
173	0101 0011	2663.13	2703.4 0.1 0.1	15.1	2705.2 -1.9
174	0101 0010	2678.75	2715.5 0.0 0.1	12.1	2721.1 -5.6
175	0101 0001	2694.38	2738.2 -0.1 -0.1	22.6	2738.9 1.2
176	0101 0000	2710.00	2750.9 0.0 0.0	12.7	2752.9 -1.9
177	0100 1111	2725.63	2762.5 0.1 0.1	11.6	2768.6 -2.1
178	0100 1110	2741.25	2770.4 0.0 0.0	7.9	2784.5 -14.1
179	0100 1101	2756.88	2800.0 -0.1 -1.9	29.6	2800.3 -0.3
180	0100 1100	2772.50	2814.4 -0.0 -0.0	14.4	2816.2 -1.8
181	0100 1011	2788.13	2829.4 0.0 0.0	15.0	2832.0 -2.6
182	0100 1010	2803.75	2839.1 -0.0 0.0	9.2	2847.9 -8.0
183	0100 1001	2819.38	2864.4 0.1 0.0	25.3	2864.2 0.2

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 104

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 149

1981/11/30 10:47:24 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-1-3-1-4 AND THRESHOLD TEST (RANGE = 1 - 32767)



NO 30 71

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	SUBJECT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO= LOWER	1:1 UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3283.5	0.1	0.1	10.3	1491.5	-4.3
211	0010 1101	3256.88	3310.9	0.1	-0.4	27.4	3407.4	1.5
212	0010 1100	3272.50	3324.1	-0.1	0.0	13.2	3523.2	0.9
213	0010 1011	3288.13	3340.9	-0.1	-0.2	16.8	3639.1	1.8
214	0010 1010	3303.75	3350.2	-0.0	-0.0	9.3	3754.9	-1.7
215	0010 1001	3319.38	3375.9	0.1	0.1	25.7	3870.8	5.1
216	0010 1000	3335.00	3380.9	-0.0	0.1	5.0	3986.4	-5.7
217	0010 0111	3350.63	3401.3	-0.3	-0.1	20.4	4102.5	-1.1
218	0010 0110	3366.25	3410.9	-0.2	-0.1	9.5	4218.3	-7.4
219	0010 0101	3381.88	3436.9	-0.1	0.0	26.0	4334.2	2.8
220	0010 0100	3397.50	3455.8	0.0	0.1	18.9	4450.0	5.8
221	0010 0011	3413.13	3469.2	-0.1	0.1	13.3	4565.8	4.3
222	0010 0010	3428.75	3481.5	-0.1	-0.2	12.4	4681.7	-6.1
223	0010 0001	3444.38	3504.1	-0.1	-0.0	22.5	4797.5	4.5
224	0010 0000	3460.00	3511.2	0.1	0.1	7.1	4913.4	-2.1
225	0001 1111	3475.63	3528.1	0.2	0.1	16.9	5029.2	-1.1
226	0001 1110	3491.25	3537.8	-0.2	-0.1	9.6	5145.1	-7.3
227	0001 1101	3506.88	3566.6	-0.3	-0.2	28.8	5260.9	5.7
228	0001 1100	3522.50	3576.3	0.1	0.0	9.7	5376.8	-0.1
229	0001 1011	3538.13	3596.0	0.0	0.2	19.7	5492.4	3.4
230	0001 1010	3553.75	3604.4	-0.1	0.0	8.3	5608.5	-4.1
231	0001 1001	3569.38	3631.7	-0.3	-0.2	27.3	5724.4	7.4
232	0001 1000	3585.00	3637.2	-0.1	-0.1	5.5	5840.2	-2.9
233	0001 0111	3600.63	3656.9	0.1	0.1	19.6	5956.0	0.9
234	0001 0110	3616.25	3665.9	0.1	0.1	9.0	6071.8	-5.0
235	0001 0101	3631.88	3695.0	-0.6	-0.1	29.1	6187.7	7.2
236	0001 0100	3647.50	3708.5	-0.2	-0.1	13.5	6303.5	1.9

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HS-236 THE MATCO MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 10

1981/11/30 10:42:24 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.17.13.5-18 AND THRESHOLD TEST (RAND) - 10 SECONDS



REV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	PENALTY STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	PROVISED
237	0001 0011	3663.13	3725.2	-0.1	-0.1	16.6	3719.4	5.8
238	0001 0010	3678.75	3736.2	0.1	0.1	11.0	3731.2	0.9
239	0001 0001	3694.38	3760.1	0.0	0.2	23.9	3761.1	9.0
240	0001 0000	3710.00	3775.8	-0.3	-0.2	15.7	3766.2	8.2
241	0000 1111	3725.63	3785.3	-0.2	-0.2	9.5	3782.8	2.6
242	0000 1110	3741.25	3795.0	0.1	0.0	9.6	3790.6	-3.6
243	0000 1101	3756.88	3823.2	0.0	-0.0	28.2	3814.5	8.8
244	0000 1100	3772.50	3836.9	-0.1	0.1	13.6	3830.3	6.6
245	0000 1011	3788.13	3853.2	-0.2	-0.1	16.3	3846.1	7.1
246	0000 1010	3803.75	3862.3	0.1	-0.1	9.0	3862.8	0.3
247	0000 1001	3819.38	3888.8	0.0	0.2	26.5	3877.8	10.9
248	0000 1000	3835.00	3897.6	0.1	0.2	8.8	3891.2	9.9
249	0000 0111	3850.63	3914.4	-0.4	0.0	16.9	3909.5	4.9
250	0000 0110	3866.25	3923.6	-0.3	-0.3	9.1	3920.4	-1.4
251	0000 0101	3881.88	3952.4	-0.1	-0.1	28.8	3941.2	17.1
252	0000 0100	3897.50	3969.4	0.0	0.2	17.0	3957.1	12.3
253	0000 0011	3913.13	3982.5	-0.1	0.2	13.2	3972.9	9.6
254	0000 0010	3928.75	3994.6	-0.3	-0.1	12.0	3988.8	11.7
255	0000 0001	3944.38	4018.0	-0.4	-0.1	23.4	4004.6	15.4

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HS-236 TH-MATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 151
 1971/11/30 10:53:47 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 S+5+R+5-41 AND THRESHOLD TEST CHAND= 1 + REFERENCE...
 S U M M A R Y

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NOV 30 '71

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT (+/- 0.0 % = THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

REFRUIT FILL STRAIGHT LINE IS: Y = 15.450X - 40.940

DEVIATION OF SLOPE FROM IDEAL IS: 1.498%
 OFFSET IS: -40.9MV
 COEFFICIENT OF DETERMINATION IS: R**2= .99997910
 ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 5.350MV REGRIT: RMS ERROR = 2.2410000

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
28.9MV	115	15.931MV	1.8MV	32	6.90000
LOWER LIMIT AT OUTPUT LEVELS RATIO = 3 1					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.4MV	47	-0.042MV	-0.4MV	78	.20310
UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 1					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.6MV	156	-0.019MV	-2.2MV	162	.25000

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TEST PASSED

HS-23A THEMATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 1

1981/11/30 10:54:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

SETPOINT AND THRESHOLD TEST (CRAND) - 10 SETPOINTS - 10 THRESHOLDS

HAS
TEST
527

43 30 78

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-29.7	-0.2	0.3		-25.1	-4.7
2	1111 1110	-8.750	-20.9	-0.1	0.2	8.8	-9.7	-11.7
3	1111 1101	6.875	6.5	-0.3	-0.2	27.4	6.7	-8.2
4	1111 1100	22.500	19.7	-0.2	-0.2	12.7	22.5	-3.4
5	1111 1011	38.125	37.3	0.2	0.1	18.1	38.4	-1.1
6	1111 1010	53.750	47.8	0.1	0.2	10.5	54.2	-4.4
7	1111 1001	69.375	73.9	-0.1	0.2	24.1	70.1	3.8
8	1111 1000	85.000	77.7	-0.3	-0.3	3.8	85.0	-8.1
9	1111 0111	100.625	98.8	-0.0	-0.1	21.1	101.8	-3.0
10	1111 0110	116.250	109.5	0.3	0.3	10.7	117.2	-9.7
11	1111 0101	131.875	134.7	0.1	0.2	25.2	133.5	1.2
12	1111 0100	147.500	150.8	-0.3	-0.1	16.1	149.4	1.9
13	1111 0011	163.125	165.6	-0.3	-0.2	14.8	165.2	0.4
14	1111 0010	178.750	178.9	0.0	-0.3	13.2	181.1	-2.3
15	1111 0001	194.375	201.9	0.0	0.1	23.1	197.0	0.0
16	1111 0000	210.000	210.7	-0.1	0.2	8.7	212.8	-2.7
17	1110 1111	225.625	226.7	-0.3	-0.2	16.1	228.2	-0.0
18	1110 1110	241.250	235.7	-0.7	-0.3	9.0	243.5	-8.8
19	1110 1101	256.875	262.4	0.1	-0.0	24.7	260.4	2.0
20	1110 1100	272.500	278.1	0.2	0.2	15.2	274.9	1.0
21	1110 1011	288.125	293.3	0.0	0.3	15.2	292.1	1.1
22	1110 1010	303.750	304.7	-0.4	-0.3	11.9	308.6	-3.0
23	1110 1001	319.375	330.0	-0.1	-0.1	25.3	322.8	2.2
24	1110 1000	335.000	336.8	0.2	0.3	6.8	339.7	-2.9
25	1110 0111	350.625	354.5	0.1	0.2	17.6	355.6	-1.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 173
 1981/11/30 10:54:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-17-81 AND THRESHOLD TEST CHANNEL 1 - SEQUENCE 11

HAC
 TEST
 S27

11/30/81

THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:11 NOMINAL LOWER UPPER	INCREASE FROM PMU THRESHOLD	BEST FIT SIGNAL LEVEL POINT DEVIATION
26 1110 0110	366.250	365.9 -0.3 0.1	11.4	371.4 -5.5
27 1110 0101	381.875	390.7 -0.3 -0.3	8.5	387.3 5.4
28 1110 0100	397.500	409.7 -0.1 -0.4	12.0	413.1 15.5
29 1110 0011	413.125	421.2 0.1 0.1	11.5	419.0 5.7
30 1110 0010	428.750	434.6 -0.1 0.3	13.4	434.9 -6.2
31 1110 0001	444.375	457.9 -0.4 -0.4	23.3	450.7 6.2
32 1110 0000	460.000	459.3 -0.3 -0.3	1.3	456.5 -3.5
33 1101 1111	475.625	481.4 0.3 0.1	22.2	482.4 6.8
34 1101 1110	491.250	489.7 0.3 0.3	6.3	494.3 3.0
35 1101 1101	506.875	517.4 -0.0 0.3	22.2	514.1 7.3
36 1101 1100	522.500	530.5 -0.3 -0.3	13.1	530.0 7.5
37 1101 1011	538.125	548.6 -0.2 -0.3	18.0	546.9 8.7
38 1101 1010	553.750	558.1 0.3 0.3	9.5	561.7 7.9
39 1101 1001	569.375	584.5 0.2 0.3	26.4	591.6 22.2
40 1101 1000	585.000	591.1 -0.4 -0.1	6.5	593.4 8.4
41 1101 0111	600.625	609.5 -0.3 -0.2	18.4	617.3 16.7
42 1101 0110	616.250	620.0 -0.1 -0.3	10.4	625.2 8.9
43 1101 0101	631.875	645.1 0.1 0.2	25.2	651.0 19.1
44 1101 0100	647.500	661.2 -0.0 0.3	16.1	665.9 18.4
45 1101 0011	663.125	675.9 -0.3 -0.3	14.2	677.7 14.6
46 1101 0010	678.750	688.9 -0.4 -0.3	12.0	698.6 20.0
47 1101 0001	694.375	711.9 0.4 -0.1	17.0	704.5 10.2
48 1101 0000	710.000	724.5 0.2 0.2	12.5	720.3 10.3
49 1100 1111	725.625	736.4 -0.1 0.3	11.9	735.2 9.5
50 1100 1110	741.250	745.2 -0.4 -0.4	8.8	752.0 10.8
51 1100 1101	756.875	772.4 0.0 -0.2	22.2	782.9 26.0

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 174

1981/11/30 10:54:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

53-54-55-56-57-58 AND THRESHOLD TEST CHANNEL = 1, SENSITIVITY = 2

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THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
		NOMINAL	LOWER	UPPER		PLINT	DEVIATION	
52	1100 1100	772.500	787.9	0.3	0.3	15.5	784.8	4.1
53	1100 1011	788.125	802.6	0.4	0.3	14.7	799.6	3.8
54	1100 1010	803.750	813.4	-0.3	0.0	10.8	815.7	-2.1
55	1100 1001	819.375	839.0	-0.3	-0.2	25.6	831.3	7.7
56	1100 1000	835.000	849.3	0.0	-0.3	10.2	847.2	2.1
57	1100 0111	850.625	863.4	0.1	0.3	14.1	863.0	0.4
58	1100 0110	866.250	874.0	-0.1	0.3	10.6	878.9	-4.9
59	1100 0101	881.875	899.4	-0.3	-0.3	25.4	894.8	4.6
60	1100 0100	897.500	918.4	-0.4	-0.3	19.1	916.6	7.8
61	1100 0011	913.125	929.3	0.2	-0.1	10.8	926.5	2.8
62	1100 0010	928.750	942.5	0.3	0.3	13.3	932.3	0.2
63	1100 0001	944.375	965.3	0.1	0.3	22.8	954.2	7.1
64	1100 0000	960.000	977.7	-0.3	-0.3	12.4	974.1	3.2
65	1011 1111	975.625	993.0	0.1	-0.2	15.2	989.9	3.1
66	1011 1110	991.250	1000.4	0.3	0.3	7.5	1001.8	-5.2
67	1011 1101	1006.88	1028.2	0.3	0.2	22.7	1021.6	6.5
68	1011 1100	1022.50	1040.4	-0.3	0.0	12.2	1032.5	2.5
69	1011 1011	1038.13	1059.5	-0.4	-0.3	19.1	1052.8	5.1
70	1011 1010	1053.75	1068.3	0.0	-0.3	8.8	1069.2	-0.2
71	1011 1001	1069.38	1094.8	0.3	0.3	26.5	1087.1	9.8
72	1011 1000	1085.00	1098.8	-0.2	0.2	3.9	1100.9	-2.1
73	1011 0111	1100.63	1119.9	-0.3	-0.3	21.1	1116.8	7.5
74	1011 0110	1116.25	1129.6	-0.3	-0.3	9.7	1127.6	-3.1
75	1011 0101	1131.88	1155.0	0.3	-0.0	25.4	1148.5	6.4
76	1011 0100	1147.50	1170.3	0.3	0.2	15.3	1164.4	5.9
77	1011 0011	1163.13	1185.6	-0.1	0.3	15.3	1180.2	7.4
78	1011 0010	1178.75	1198.6	-0.4	-0.4	13.0	1195.1	2.5

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 125

1981/11/30 10:54:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-A A/D THRESHOLD TEST (RANGE = 1.0 SENSR-14



10/30/81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1271.7	0.1	-0.1	23.1	1211.9	9.8
80	1011 0000	1210.00	1233.1	0.3	0.3	11.4	1222.8	5.3
81	1010 1111	1225.63	1245.9	0.2	0.2	12.8	1243.7	2.2
82	1010 1110	1241.25	1254.0	-0.4	0.0	8.1	1259.5	-5.5
83	1010 1101	1256.88	1281.7	-0.3	-0.3	27.7	1275.4	6.3
84	1010 1100	1272.50	1296.5	0.0	-0.3	14.7	1291.2	5.2
85	1010 1011	1288.13	1312.1	0.3	0.3	15.6	1307.1	1.0
86	1010 1010	1303.75	1322.1	-0.0	0.2	10.0	1323.0	-0.9
87	1010 1001	1319.38	1348.0	-0.3	-0.2	25.9	1338.8	9.2
88	1010 1000	1335.00	1354.7	-0.2	-0.3	6.6	1354.7	-0.0
89	1010 0111	1350.63	1372.5	0.3	-0.0	17.8	1370.5	1.9
90	1010 0110	1366.25	1382.3	0.3	0.3	9.2	1385.4	-3.1
91	1010 0101	1381.88	1407.9	-0.1	0.3	25.6	1402.3	5.7
92	1010 0100	1397.50	1426.5	-0.3	-0.3	18.6	1418.1	8.4
93	1010 0011	1413.13	1438.7	0.1	-0.2	12.1	1434.0	3.7
94	1010 0010	1428.75	1451.5	0.3	0.2	12.8	1449.3	1.6
95	1010 0001	1444.38	1474.3	0.2	0.1	22.8	1465.7	8.4
96	1010 0000	1460.00	1481.0	-0.3	0.0	6.7	1481.5	-0.4
97	1001 1111	1475.63	1498.4	-0.3	-0.3	17.4	1497.4	1.0
98	1001 1110	1491.25	1505.8	-0.1	-0.5	7.4	1515.3	-7.5
99	1001 1101	1506.88	1533.9	0.2	0.3	28.2	1529.1	4.8
100	1001 1100	1522.50	1545.5	0.0	0.3	11.6	1551.8	0.5
101	1001 1011	1538.13	1564.6	-0.1	-0.1	19.0	1560.3	3.7
102	1001 1010	1553.75	1573.3	-0.3	-0.3	8.7	1574.7	-4.4
103	1001 1001	1569.38	1599.9	0.3	-0.0	26.7	1592.6	7.4
104	1001 1000	1585.00	1605.3	0.3	0.3	5.3	1608.4	-3.1

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 116

1981/11/30 10:54:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.17.3.15-R AND THRESHOLD TEST (RANO- 1.0 DEFENSE- 1.1)



K2 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRATEGY LINE	
			LEVELS RATIO- NOMINAL	LOWER	UPPER		CONST	DEFINITION
105	1001 0111	1600.63	1674.7	0.0	0.3	19.4	1624.9	0.4
106	1001 0110	1616.25	1634.3	-0.3	-0.3	9.5	1630.1	-0.9
107	1001 0101	1631.88	1660.6	0.1	-0.2	26.3	1656.0	4.3
108	1001 0100	1647.50	1675.5	0.1	0.3	14.9	1671.9	1.6
109	1001 0011	1663.13	1690.8	0.3	0.3	15.3	1687.2	3.1
110	1001 0010	1678.75	1703.3	-0.3	-0.0	12.5	1703.6	-0.3
111	1001 0001	1694.38	1726.9	-0.3	-0.3	23.6	1719.4	2.5
112	1001 0000	1710.00	1742.0	0.0	0.1	15.1	1737.4	5.7
113	1000 1111	1725.63	1750.9	0.2	0.2	8.9	1751.2	-0.2
114	1000 1110	1741.25	1758.3	0.1	0.5	7.3	1767.0	-8.7
115	1000 1101	1756.88	1787.1	-0.3	-0.4	28.9	1782.9	4.3
116	1000 1100	1772.50	1801.7	-0.2	-0.2	14.6	1798.7	3.0
117	1000 1011	1788.13	1817.2	0.2	-0.1	15.4	1814.6	2.6
118	1000 1010	1803.75	1826.8	0.1	0.2	9.6	1830.4	-3.7
119	1000 1001	1819.38	1852.9	-0.3	-0.1	26.1	1846.3	6.6
120	1000 1000	1835.00	1863.2	-0.3	-0.2	10.3	1862.2	1.6
121	1000 0111	1850.63	1877.6	-0.1	-0.3	14.5	1878.0	-0.4
122	1000 0110	1866.25	1886.8	0.3	0.3	9.2	1893.7	-7.0
123	1000 0101	1881.88	1913.0	0.3	0.3	26.2	1909.7	3.3
124	1000 0100	1897.50	1931.5	-0.3	0.0	18.5	1925.5	11.2
125	1000 0011	1913.13	1943.5	-0.2	-0.3	12.0	1941.5	2.1
126	1000 0010	1928.75	1955.9	0.3	-0.0	12.4	1957.3	-1.4
127	1000 0001	1944.38	1979.1	0.2	0.2	23.2	1973.2	4.0
128	1000 0000	1960.00	1988.0	-0.1	0.2	9.1	1989.0	-0.2
129	0111 1111	1975.63	2001.6	-0.3	-0.3	13.3	2001.9	-3.2
130	0111 1110	1991.25	2009.3	-0.4	-0.3	7.2	2000.3	-11.2

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	LEAST FIT STRAIGHT LINE	
			NOMINAL	LOWER	1:1 UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2036.5	0.2	-0.0	27.2	2036.6	-0.1
132	0111 1100	2022.50	2049.9	0.2	0.2	13.4	2052.1	-2.6
133	0111 1011	2038.13	2068.4	-0.3	-0.1	18.5	2058.3	0.1
134	0111 1010	2053.75	2078.0	-0.3	-0.3	9.6	2084.2	-5.2
135	0111 1001	2069.38	2103.8	-0.1	-0.2	25.7	2100.0	3.7
136	0111 1000	2085.00	2106.7	0.2	0.1	3.0	2115.9	-9.2
137	0111 0111	2100.63	2128.4	0.2	0.2	21.7	2131.8	-3.3
138	0111 0110	2116.25	2137.9	-0.3	-0.1	9.4	2147.6	-9.8
139	0111 0101	2131.88	2163.6	-0.3	-0.3	25.7	2163.5	0.1
140	0111 0100	2147.50	2179.8	0.3	0.0	16.2	2179.3	0.5
141	0111 0011	2163.13	2194.7	0.2	0.2	14.9	2195.2	-0.5
142	0111 0010	2178.75	2207.6	-0.0	0.1	12.9	2211.1	-3.4
143	0111 0001	2194.38	2230.7	-0.2	-0.3	23.0	2236.9	-6.7
144	0111 0000	2210.00	2239.4	-0.3	-0.3	8.7	2242.8	-3.4
145	0110 1111	2225.63	2254.5	0.1	-0.0	15.1	2258.6	-4.2
146	0110 1110	2241.25	2267.3	0.1	0.1	7.8	2274.1	-12.2
147	0110 1101	2256.88	2290.0	-0.3	-0.1	27.7	2290.4	-0.4
148	0110 1100	2272.50	2306.3	-0.3	-0.3	16.3	2316.2	0.0
149	0110 1011	2288.13	2321.4	-0.0	-0.3	15.1	2322.1	-0.2
150	0110 1010	2303.75	2371.6	0.2	0.1	10.2	2337.9	-6.1
151	0110 1001	2319.38	2356.5	0.1	0.2	24.9	2351.8	7.8
152	0110 1000	2335.00	2362.7	-0.3	-0.1	6.1	2369.2	-7.0
153	0110 0111	2350.63	2381.5	-0.2	-0.2	18.9	2381.5	-4.0
154	0110 0110	2366.25	2390.8	0.2	-0.1	9.2	2391.4	-10.6
155	0110 0101	2381.88	2416.3	0.2	0.1	21.6	2417.2	-0.9
156	0110 0100	2397.50	2435.8	0.1	0.6	19.4	2437.1	-2.7
157	0110 0011	2413.13	2447.8	-0.2	-0.3	12.1	2438.9	-1.1

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23: 12: 81

RESOLUTION NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE LEVELS RATIO-- NOMINAL LOWER	INCREASE FROM TEST THRESHOLD	PERCENT STRAINED FIBER POINT	DEVIATION		
184	0100 1000	2835.00	2871.3	-0.1	-0.0	9.2	2872.1	-5.8
185	0100 0111	2850.63	2887.3	-0.2	-0.1	16.0	2893.0	-11.7
186	0100 0110	2856.25	2896.2	-0.3	-0.2	0.9	2908.9	-12.6
187	0100 0101	2881.88	2922.4	0.1	-0.1	26.2	2924.7	2.3
188	0100 0100	2897.50	2942.3	0.1	0.1	19.9	2940.5	1.8
189	0100 0011	2913.13	2954.1	-0.2	-0.1	11.7	2956.4	2.4
190	0100 0010	2928.75	2966.5	-0.1	-0.1	12.4	2972.3	-7.8
191	0100 0001	2944.38	2989.7	-0.1	-0.1	23.2	2988.2	1.6
192	0100 0000	2960.00	3004.6	0.1	0.1	14.9	3004.0	0.6
193	0011 1111	2975.63	3016.4	0.1	0.1	11.8	3019.9	-3.5
194	0011 1110	2991.25	3025.4	-0.1	-0.0	9.0	3030.2	-10.3
195	0011 1101	3016.88	3052.3	-0.2	-0.1	26.9	3051.5	0.8
196	0011 1100	3022.50	3064.4	0.1	0.0	12.1	3067.4	-5.0
197	0011 1011	3038.13	3083.8	0.1	0.1	19.4	3083.3	0.5
198	0011 1010	3053.75	3092.0	-0.1	0.1	8.2	3092.2	-2.5
199	0011 1001	3069.38	3119.0	-0.2	0.1	26.9	3111.0	2.9
200	0011 1000	3085.00	3121.8	-0.2	-0.2	2.8	3130.9	-9.1
201	0011 0111	3100.63	3144.3	0.0	-0.0	22.5	3146.7	-2.5
202	0011 0110	3116.25	3152.2	0.0	0.0	0.4	3152.6	9.9
203	0011 0101	3131.88	3179.6	-0.1	0.1	26.9	3178.5	1.1
204	0011 0100	3147.50	3195.1	-0.1	-0.1	15.5	3194.3	0.8
205	0011 0011	3163.13	3211.5	0.0	-0.1	16.4	3210.2	1.4
206	0011 0010	3178.75	3222.9	0.1	0.1	11.3	3223.8	-3.2
207	0011 0001	3194.38	3242.1	0.0	0.1	24.2	3241.9	5.2
208	0011 0000	3210.00	3258.5	0.0	-0.0	11.4	3252.3	0.5
209	0010 1111	3225.63	3271.3	-0.1	-0.1	12.8	3273.6	-1.3

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HS-226 THERMATIC HALFTER AUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 140
 1981/11/30 10:54:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 B.T.H. 4.51-44 AND THRESHOLD TEST (RANDOM) 3.0 DEFENSE-44



THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER DIFFER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
210	0010 1110	3241.25 3280.5 0.0 0.0	9.2	3279.1 0.2
211	0010 1101	3256.88 3307.0 0.0 0.3	26.5	3305.3 1.2
212	0010 1100	3272.50 3322.3 -0.0 0.2	15.3	3321.0 1.2
213	0010 1011	3288.13 3339.0 -0.2 -0.1	16.7	3337.1 2.0
214	0010 1010	3303.75 3347.9 -0.1 -0.1	8.9	3342.2 1.0
215	0010 1001	3319.38 3374.1 -0.0 -0.0	26.2	3348.3 1.4
216	0010 1000	3335.00 3379.5 0.1 0.1	5.4	3384.6 -5.1
217	0010 0111	3350.63 3399.6 -0.1 -0.1	20.0	3388.5 -0.9
218	0010 0110	3366.25 3408.3 -0.3 -0.3	8.7	3416.3 -8.1
219	0010 0101	3381.88 3435.1 -0.0 -0.0	26.8	3432.2 2.9
220	0010 0100	3397.50 3453.9 0.1 0.2	18.8	3444.1 5.8
221	0010 0011	3413.13 3467.1 0.0 0.1	13.2	3463.9 1.2
222	0010 0010	3428.75 3479.0 -0.2 -0.0	11.9	3479.8 -0.9
223	0010 0001	3444.38 3502.8 -0.2 -0.1	23.8	3495.6 7.2
224	0010 0000	3460.00 3509.5 0.1 0.1	6.7	3511.5 -2.0
225	0001 1111	3475.63 3526.4 0.1 0.1	16.9	3517.4 -1.0
226	0001 1110	3491.25 3535.0 -0.1 0.0	8.6	3531.2 -3.2
227	0001 1101	3506.88 3562.9 -0.1 -0.1	27.9	3559.1 1.9
228	0001 1100	3522.50 3575.1 -0.1 -0.1	12.2	3574.9 0.2
229	0001 1011	3538.13 3594.6 -0.1 0.0	19.5	3578.8 4.8
230	0001 1010	3553.75 3602.3 -0.0 0.1	7.7	3595.7 -4.3
231	0001 1001	3569.38 3629.6 0.0 -0.0	17.3	3617.0 7.1
232	0001 1000	3585.00 3636.0 -0.2 -0.1	6.4	3640.4 -2.3
233	0001 0111	3600.63 3655.5 -0.1 0.0	19.5	3654.2 1.3
234	0001 0110	3616.25 3663.6 0.0 0.1	8.1	3670.1 -6.5
235	0001 0101	3631.88 3691.3 0.0 0.1	27.2	3688.9 5.4
236	0001 0100	3647.50 3707.0 -0.1 0.0	15.6	3701.8 5.1

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 121

1981/11/30 10:54:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4.5.3.5-4 A/D THRESHOLD TEST (RANGE 1 - SENSITIVE)

HAC
TEST
S27

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3463.13	3723.6	-0.1	-0.1	16.6	3717.7	5.9
239	0001 0010	3678.75	3734.3	-0.0	-0.0	10.7	3733.5	0.7
239	0001 0001	3694.38	3758.7	0.2	0.4	24.5	3749.4	9.4
240	0001 0000	3710.00	3774.5	-0.2	0.1	15.7	3765.2	9.2
241	0000 1111	3725.63	3783.5	-0.1	0.0	9.1	3781.1	2.4
242	0000 1110	3741.25	3792.4	0.0	0.0	8.8	3797.0	-4.4
243	0000 1101	3756.88	3820.2	-0.3	-0.1	27.8	3812.8	7.4
244	0000 1100	3772.50	3835.6	-0.1	0.0	15.4	3828.2	6.2
245	0000 1011	3788.13	3851.9	-0.2	0.0	16.3	3844.5	7.4
246	0000 1010	3803.75	3860.4	-0.1	-0.1	8.5	3850.4	0.0
247	0000 1001	3819.38	3887.4	-0.2	-0.0	27.0	3876.3	11.2
248	0000 1000	3835.00	3897.0	-0.0	-0.1	9.6	3892.1	4.9
249	0000 0111	3850.63	3913.0	-0.1	0.0	16.0	3908.0	5.0
250	0000 0110	3866.25	3921.3	-0.1	-0.0	8.3	3923.3	-2.5
251	0000 0101	3881.88	3949.2	-0.3	-0.0	27.9	3939.2	9.5
252	0000 0100	3897.50	3968.1	0.0	0.1	18.8	3955.5	12.5
253	0000 0011	3913.13	3981.2	0.0	0.1	13.1	3971.4	2.8
254	0000 0010	3928.75	3992.6	-0.1	0.0	11.4	3987.3	5.3
255	0000 0001	3944.38	4016.8	-0.1	-0.0	24.2	4003.1	13.2

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S-216 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 162

981/11/30 11:00:24 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

* 15.891MV AND THRESHOLD TEST (BAND - 1 - 15.891MV) *
SUMMARY



2 30 81

HECK 1) RMS ERROR, 2) THRESHOLD INCREMENT (+/- 0.0 = THRH INC <= 31.2)

IF REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.891X - 34.296$

DEVIATION OF SLOPE FROM IDEAL IS: 1.206%

OFFSET IS: -34.296MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .9999/980$

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 5.046MV REPORT: RMS ERROR = 2.417MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
20.6MV	201	15.891MV	1.0MV	200	1.979MV
LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 11					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
2.4MV	100	-0.061MV	-3.6MV	234	.453MV
UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 11					
MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
2.1MV	100	0.008MV	-1.0MV	175	.779MV

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TEST PASSED

HS-236 THERMATIC MAPPER MUX UNIT TEST MODEL 1.1, FLT. S/N 3 PAGE 144
 1981/11/30 11:00:38 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 1.1.1.1.1.1.1 AND THRESHOLD TEST CHANNEL 10 PENALTY 0

HAC
TEST
527

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDFAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM MIN U THRESHOLD	TEST FIT STATISTICS POINT DEVIATION
--	------------------------	---	-------------------------------------	--

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-25.8	-0.1	0.1		-20.4	-0.4
2	1111 1110	-8.750	-13.8	0.1	0.1	12.6	-4.6	-9.2
3	1111 1101	6.875	9.8	-0.1	0.1	23.2	11.2	-1.4
4	1111 1100	22.500	24.2	-0.1	-0.2	14.4	22.4	-2.3
5	1111 1011	38.125	41.5	-0.2	-0.2	17.3	42.8	-1.4
6	1111 1010	53.750	53.2	0.2	0.1	11.2	58.5	-0.4
7	1111 1001	69.375	76.7	0.1	0.2	23.5	74.4	2.3
8	1111 1000	85.000	82.4	-0.1	-0.1	5.6	90.3	-7.2
9	1111 0111	100.625	102.4	-0.2	-0.1	20.0	106.1	-2.7
10	1111 0110	116.250	114.4	-0.1	-0.1	12.0	121.2	-7.4
11	1111 0101	131.875	137.7	0.0	0.2	23.3	137.2	0.0
12	1111 0100	147.500	155.2	0.1	0.1	17.5	152.5	1.2
13	1111 0011	163.125	169.3	-0.2	0.0	14.0	169.3	-0.0
14	1111 0010	178.750	184.5	-0.2	-0.1	15.2	182.1	-0.2
15	1111 0001	194.375	204.9	0.1	0.0	20.4	201.8	0.9
16	1111 0000	210.000	214.8	0.0	0.1	9.9	216.8	-1.7
17	1110 1111	225.625	229.6	-0.1	0.1	14.7	232.6	-1.0
18	1110 1110	241.250	239.9	-0.1	-0.0	10.3	248.4	-9.5
19	1110 1101	256.875	265.3	-0.2	-0.1	25.4	264.2	1.1
20	1110 1100	272.500	281.8	0.0	-0.0	16.5	280.0	1.8
21	1110 1011	288.125	296.6	0.1	0.1	14.8	296.8	0.8
22	1110 1010	303.750	309.4	-0.2	0.0	12.8	311.5	-2.4
23	1110 1001	319.375	332.0	-0.2	-0.1	22.7	322.5	-4.6
24	1110 1000	335.000	341.5	0.0	-0.2	9.4	344.3	-1.8
25	1110 0111	350.625	357.4	0.1	0.1	15.9	359.1	-1.2

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45-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 1-4

1981/11/30 11:00:38 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-5-8 AND THRESHOLD TEST (BAND 1 - SENSOR 1)



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO= 1:1 LOWER UPPER	POINT		DEVIATION	
26	1110 0110	366.250	369.8	0.1	0.0	12.4	324.9	-5.1
27	1110 0101	381.875	393.0	-0.2	-0.0	23.2	308.7	2.3
28	1110 0100	397.500	413.9	-0.2	-0.1	20.9	406.1	7.4
29	1110 0011	413.125	424.1	0.1	0.0	10.2	422.3	1.8
30	1110 0010	428.750	440.0	0.1	0.2	15.9	408.2	1.8
31	1110 0001	444.375	459.8	-0.1	0.1	19.8	414.0	5.8
32	1110 0000	460.000	464.5	-0.0	-0.0	4.7	469.8	-5.3
33	1101 1111	475.625	484.1	-0.3	-0.2	19.6	485.6	-1.5
34	1101 1110	491.250	495.4	0.1	-0.0	11.4	501.4	-4.0
35	1101 1101	506.875	519.7	0.0	0.1	24.2	512.2	2.4
36	1101 1100	522.500	533.5	-0.2	0.1	13.8	533.0	0.5
37	1101 1011	538.125	551.0	-0.1	-0.0	17.5	548.9	2.2
38	1101 1010	553.750	562.0	0.0	-0.0	10.9	574.2	-2.2
39	1101 1001	569.375	586.1	0.1	0.1	24.1	580.1	1.6
40	1101 1000	585.000	594.3	0.0	0.0	8.3	596.3	-2.0
41	1101 0111	600.625	611.7	-0.2	-0.0	17.3	612.1	-0.4
42	1101 0110	616.250	623.1	-0.2	-0.1	11.4	627.2	-4.3
43	1101 0101	631.875	646.8	0.2	0.0	23.7	643.2	2.1
44	1101 0100	647.500	664.8	0.0	0.0	17.9	659.1	1.2
45	1101 0011	663.125	678.3	-0.1	0.1	13.5	675.4	2.9
46	1101 0010	678.750	692.7	-0.2	-0.1	14.4	691.2	1.5
47	1101 0001	694.375	713.5	-0.2	-0.2	20.8	707.9	-5.5
48	1101 0000	710.000	727.1	0.1	0.0	13.6	722.8	4.3
49	1100 1111	725.625	738.0	0.1	0.1	10.8	735.6	-0.6
50	1100 1110	741.250	747.8	-0.1	2.1	9.8	744.4	-4.6
51	1100 1101	756.875	773.6	-0.1	-0.1	25.8	770.1	1.4

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HS-206 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 16
 1981/11/30 11:00:38 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-11-16-1-1-1 AND THRESHOLD TEST (PANE) = 7.4 DEFENSE



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM FREQ THRESHOLD	PERCENT STEADY STATE	
			NOMINAL	LOWER	UPPER		INPUT	OUTPUT
52	1100 1100	772.500	790.1	0.1	0.0	16.5	785.1	4.1
53	1100 1011	788.125	804.5	0.1	0.1	14.4	801.2	2.2
54	1100 1010	803.750	816.6	0.0	0.1	12.0	817.7	1.1
55	1100 1001	819.375	839.8	-0.2	-0.0	23.7	841.0	6.4
56	1100 1000	835.000	851.7	-0.1	-0.1	11.9	849.1	2.3
57	1100 0111	850.625	864.8	0.1	0.0	19.1	865.1	-0.3
58	1100 0110	866.250	876.5	0.1	0.1	11.7	880.9	-4.9
59	1100 0101	881.875	900.1	0.0	0.2	23.5	897.7	1.3
60	1100 0100	897.500	921.4	-0.1	-0.1	21.3	912.3	8.8
61	1100 0011	913.125	931.2	-0.2	-0.1	9.8	938.4	2.8
62	1100 0010	928.750	946.2	0.1	-0.0	15.0	949.2	2.0
63	1100 0001	944.375	966.1	0.2	0.2	19.9	970.0	6.1
64	1100 0000	960.000	978.8	-0.1	0.0	12.7	975.8	4.0
65	1011 1111	975.625	993.9	-0.1	-0.1	15.2	991.6	2.3
66	1011 1110	991.250	1004.8	0.0	-0.2	10.8	1007.4	-2.2
67	1011 1101	1006.88	1028.9	0.1	0.2	24.2	1035.2	5.7
68	1011 1100	1022.50	1042.5	0.2	0.1	19.5	1059.1	2.6
69	1011 1011	1038.13	1060.7	-0.1	-0.1	18.2	1064.9	5.8
70	1011 1010	1053.75	1070.6	-0.1	-0.2	9.8	1070.7	-0.1
71	1011 1001	1069.38	1094.9	0.2	-0.0	24.3	1088.1	8.4
72	1011 1000	1085.00	1099.2	0.1	0.1	4.7	1102.3	-2.2
73	1011 0111	1100.63	1120.6	0.0	0.1	20.9	1135.1	2.4
74	1011 0110	1116.25	1131.1	-0.1	-0.1	10.5	1139.0	-2.9
75	1011 0101	1131.88	1155.4	-0.1	-0.1	23.3	1169.2	5.6
76	1011 0100	1147.50	1172.0	0.1	0.2	16.6	1181.6	6.5
77	1011 0011	1163.13	1187.1	0.1	0.1	15.1	1186.4	5.8
78	1011 0010	1178.75	1200.4	0.1	-0.0	13.3	1197.2	4.2

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HS-236 THEMATIC MAPPER AUX UNIT TEST MODEL... FLT. S/N 3 PAGE 144

1981/11/30 11:00:38 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.1.1.3.5-3 AND THRESHOLD TEST (CONTINUED) 7.5 SEE NEXT PAGE



THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	DEVIATION FROM IDEAL	
			NOMINAL	LOWER	UPPER		ERROR	PERCENT
79	1011 0001	1194.38	1221.5	-0.1	-0.1	21.0	1214.0	8.3
80	1011 0000	1210.00	1234.2	0.1	-0.1	12.7	1228.8	7.4
81	1010 1111	1225.63	1246.1	0.2	0.2	11.8	1244.6	1.4
82	1010 1110	1241.25	1257.5	0.2	0.2	11.4	1260.5	-2.9
83	1010 1101	1256.88	1281.4	-0.1	-0.2	23.8	1276.5	1.1
84	1010 1100	1272.50	1297.2	-0.1	-0.1	15.8	1307.1	1.1
85	1010 1011	1288.13	1312.9	0.1	-0.1	15.7	1307.9	1.1
86	1010 1010	1303.75	1323.6	0.0	0.1	10.7	1323.7	-0.1
87	1010 1001	1319.38	1347.0	0.0	0.3	27.4	1339.5	7.1
88	1010 1000	1335.00	1355.8	-0.1	-0.1	8.7	1355.1	9.4
89	1010 0111	1350.63	1372.8	-0.1	-0.1	17.0	1371.2	1.4
90	1010 0110	1366.25	1383.4	0.1	0.1	10.6	1382.0	-3.6
91	1010 0101	1381.88	1407.3	0.1	0.1	24.0	1407.8	4.0
92	1010 0100	1397.50	1427.8	-0.3	0.1	20.5	1418.6	9.3
93	1010 0011	1413.13	1439.3	-0.1	-0.2	11.5	1434.9	3.5
94	1010 0010	1428.75	1453.8	0.0	-0.0	14.4	1450.2	3.5
95	1010 0001	1444.38	1473.3	0.2	0.2	19.6	1471.0	7.3
96	1010 0000	1460.00	1481.9	0.0	0.0	8.5	1481.8	0.0
97	1001 1111	1475.63	1497.7	-0.1	-0.1	15.8	1492.7	0.0
98	1001 1110	1491.25	1508.1	-0.2	-0.2	10.4	1513.5	-5.4
99	1001 1101	1506.88	1534.5	0.3	-0.0	27.4	1529.3	1.2
100	1001 1100	1522.50	1545.7	0.1	0.2	11.2	1551.1	0.5
101	1001 1011	1538.13	1564.3	-0.0	0.1	18.6	1560.9	3.8
102	1001 1010	1553.75	1573.7	-0.3	-0.2	9.5	1576.2	-1.0
103	1001 1001	1569.38	1599.0	-0.1	-0.2	25.3	1592.5	3.5
104	1001 1000	1585.00	1606.1	0.3	0.2	7.1	1605.3	-2.5

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 147

1981/11/30 11:00:38 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5-3.5-8 A/D THRESHOLD TEST (RAND= 1 - PENALTY)



NOV 30 '81

THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
105	1001 0111	1600.63	1624.1	0.1	0.1	1624.2	-0.1
106	1001 0110	1616.25	1634.3	-0.1	-0.1	1640.0	-2.7
107	1001 0101	1631.88	1659.2	-0.2	-0.3	1655.8	2.5
108	1001 0100	1647.50	1676.1	0.0	-0.3	1671.1	4.5
109	1001 0011	1663.13	1690.7	0.2	0.3	1687.4	3.3
110	1001 0010	1678.75	1703.6	0.1	0.1	1703.2	0.4
111	1001 0001	1694.38	1725.1	-0.2	-0.2	1719.1	6.1
112	1001 0000	1710.00	1741.4	-0.2	-0.1	1734.9	6.6
113	1000 1111	1725.63	1749.6	0.1	-0.0	1750.7	-1.0
114	1000 1110	1741.25	1760.6	0.2	0.2	1756.5	-5.9
115	1000 1101	1756.88	1786.5	0.0	0.1	1782.3	4.2
116	1000 1100	1772.50	1800.7	-0.1	-0.2	1798.1	2.6
117	1000 1011	1788.13	1816.3	-0.1	-0.1	1813.9	2.4
118	1000 1010	1803.75	1826.8	0.1	0.0	1829.2	-3.0
119	1000 1001	1819.38	1850.8	0.2	0.2	1845.6	5.2
120	1000 1000	1835.00	1867.3	-0.0	0.0	1861.4	0.9
121	1000 0111	1850.63	1876.1	-0.2	-0.2	1877.2	-1.1
122	1000 0110	1866.25	1886.5	-0.0	-0.2	1893.0	-6.5
123	1000 0101	1881.88	1910.9	0.2	0.2	1903.3	2.1
124	1000 0100	1897.50	1931.2	0.2	0.1	1924.6	6.6
125	1000 0011	1913.13	1942.6	-0.3	-0.2	1940.4	2.2
126	1000 0010	1928.75	1956.9	-0.1	-0.2	1956.3	0.6
127	1000 0001	1944.38	1976.7	0.3	-0.0	1972.1	4.6
128	1000 0000	1960.00	1986.6	0.0	0.0	1982.9	-1.2
129	0111 1111	1975.63	1999.1	-0.0	0.2	2003.7	-4.6
130	0111 1110	1991.25	2010.8	-0.4	-0.3	2019.2	-8.7

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL... FLT. SYN 3 PAGE 1-8

1981/11/30 11:00:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-11-81-11-11 AND THRESHOLD TEST (1000) T. 1000-1000-1000



BY 30 81

THRESHOLD NUMBER	AND OUTPUT THRESHOLD	IDEAL VALUE (V)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	PENALTY SUBTOTAL FOR	
			NOMINAL	LOWER	UPPER		1000	OPERATION
131	0111 1101	2006.88	2036.3	-0.2	-0.2	25.3	26.3.3	1.0
132	0111 1100	2022.50	2048.6	0.6	0.6	12.3	2041.1	-2.5
133	0111 1011	2038.13	2066.2	0.2	0.2	12.7	2065.9	-0.2
134	0111 1010	2053.75	2076.6	-0.1	0.0	10.4	2082.8	-6.2
135	0111 1001	2069.38	2100.2	-0.2	-0.2	23.6	2091.2	1.6
136	0111 1000	2085.00	2104.4	0.0	-0.2	4.2	2114.4	-10.0
137	0111 0111	2100.63	2126.1	0.2	0.1	21.2	2120.2	-4.1
138	0111 0110	2116.25	2136.1	0.2	0.2	10.0	2135.0	-9.9
139	0111 0101	2131.88	2162.7	-0.3	-0.3	26.6	2161.8	0.9
140	0111 0100	2147.50	2178.9	-0.1	-0.1	16.1	2172.5	1.3
141	0111 0011	2163.13	2192.8	0.2	0.0	13.9	2193.5	-0.6
142	0111 0010	2178.75	2206.8	0.1	0.2	14.0	2209.3	-2.5
143	0111 0001	2194.38	2227.0	-0.1	0.2	20.2	2225.1	1.9
144	0111 0000	2210.00	2237.4	-0.1	-0.2	10.4	2240.9	-3.5
145	0110 1111	2225.63	2251.6	-0.1	-0.1	14.2	2265.2	-1.1
146	0110 1110	2241.25	2263.4	0.2	0.2	11.8	2272.5	-9.1
147	0110 1101	2256.88	2288.4	0.3	0.2	25.0	2288.3	0.1
148	0110 1100	2272.50	2303.8	-0.4	0.0	15.3	2304.2	-0.5
149	0110 1011	2288.13	2318.8	-0.3	-0.3	15.0	2320.0	-1.9
150	0110 1010	2303.75	2330.1	-0.0	-0.1	11.4	2335.8	-5.7
151	0110 1001	2319.38	2352.3	2.4	0.2	22.1	2351.5	0.2
152	0110 1000	2335.00	2360.4	0.2	0.2	8.2	2367.4	-2.0
153	0110 0111	2350.63	2378.5	-0.3	-0.1	18.0	2383.2	-4.2
154	0110 0110	2366.25	2388.9	-0.3	-0.3	10.4	2399.0	-10.2
155	0110 0101	2381.88	2414.7	0.3	0.1	21.8	2414.8	-3.2
156	0110 0100	2397.50	2434.5	0.2	0.2	19.9	2436.2	3.2
157	0110 0011	2413.13	2444.9	0.1	0.2	10.4	2445.7	-1.7

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HS-236 THERMATIC MATTER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 159

1981/11/30 11:00:30 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

FLYING - 14-15-16 AND THRESHOLD TEST CRONOS - 11 - 12-13-14-15-16

NOV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1 NOMINAL LOWER UPPER	INCREASE FROM INPUT THRESHOLD	DIFFERENTIAL STRAIGHT LINE POINT DEVIATION			
158	0110 0010	2428.75	2460.6	-0.5	-0.3	15.7	2462.4	-1.6
159	0110 0001	2444.38	2479.2	0.0	-0.3	18.6	2478.1	1.1
160	0110 0000	2460.00	2485.1	0.1	0.0	5.8	2493.9	-8.8
161	0101 1111	2475.63	2503.0	0.2	0.2	17.9	2489.7	-6.7
162	0101 1110	2491.25	2514.2	-0.2	0.0	11.1	2495.1	-11.4
163	0101 1101	2506.88	2540.6	-0.4	-0.3	26.5	2541.4	-0.7
164	0101 1100	2522.50	2554.0	0.0	-0.3	13.3	2557.2	-4.2
165	0101 1011	2538.13	2570.1	0.3	0.3	16.2	2573.0	-2.8
166	0101 1010	2553.75	2580.0	-0.1	0.1	9.9	2583.8	-8.7
167	0101 1001	2569.38	2606.9	-0.4	-0.4	26.9	2604.6	2.3
168	0101 1000	2585.00	2611.3	-0.3	-0.3	4.4	2616.4	-9.1
169	0101 0111	2600.63	2629.9	0.2	0.1	18.6	2626.2	-6.3
170	0101 0110	2616.25	2639.6	0.2	0.2	9.6	2642.8	-12.3
171	0101 0101	2631.88	2666.7	0.1	0.3	22.1	2667.9	-1.2
172	0101 0100	2647.50	2683.4	-0.2	-0.3	16.7	2683.2	8.1
173	0101 0011	2663.13	2697.2	0.0	-0.3	13.8	2699.1	-2.3
174	0101 0010	2678.75	2710.2	0.6	0.0	13.0	2715.3	-1.1
175	0101 0001	2694.38	2732.7	0.4	-1.0	22.5	2733.1	-1.6
176	0101 0000	2710.00	2745.2	-0.4	0.1	12.5	2746.9	-1.2
177	0100 1111	2725.63	2755.6	-0.3	-0.3	10.4	2752.7	-7.1
178	0100 1110	2741.25	2767.2	-0.1	-0.6	11.6	2773.6	-11.4
179	0100 1101	2756.88	2792.6	0.3	0.4	20.4	2794.6	-1.7
180	0100 1100	2772.50	2807.9	0.0	0.3	17.3	2810.7	2.7
181	0100 1011	2788.13	2822.8	-0.3	-0.2	14.9	2823.1	-5.2
182	0100 1010	2803.75	2833.9	-0.1	-0.3	11.1	2831.3	7.2
183	0100 1001	2819.38	2859.0	-2.1	-0.0	20.1	2857.6	1.4

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US-206 THEMATIC MAPPER MUX UNIT TEST MODEL 11, FLT. S/N 3 PAGE 120

1981/11/30 11:00:38 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TEST 11-12-13-14 AND THRESHOLD TEST CHANNEL 11 DEFERRED

NOV 30 '81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
184	0100 1000	2835.00	2867.3	0.2	0.2	8.3	2871.4	-6.1
185	0100 0111	2850.53	2882.4	0.1	0.3	15.1	2889.3	-6.9
186	0100 0110	2866.25	2892.6	-0.3	-0.3	10.2	2901.1	-12.1
187	0100 0101	2881.88	2919.5	0.0	-0.4	26.9	2921.9	-11.8
188	0100 0100	2897.50	2939.2	0.3	0.4	19.7	2936.7	2.5
189	0100 0011	2913.13	2949.3	0.3	0.4	10.1	2952.5	3.2
190	0100 0010	2928.75	2964.5	-0.2	-0.1	15.2	2961.3	-3.3
191	0100 0001	2944.38	2985.7	-0.3	-0.2	21.1	2984.1	1.1
192	0100 0000	2960.00	2998.7	0.0	-0.1	13.0	2997.9	-1.1
193	0011 1111	2975.63	3010.7	0.3	0.3	12.0	3011.2	-1.0
194	0011 1110	2991.25	3021.3	0.0	0.4	10.5	3021.6	-10.1
195	0011 1101	3006.88	3048.7	-0.3	-0.3	27.4	3047.4	1.0
196	0011 1100	3022.50	3060.3	-0.3	-0.3	11.6	3063.2	-2.9
197	0011 1011	3038.13	3078.4	0.2	0.1	18.1	3079.8	-8.6
198	0011 1010	3053.75	3087.4	0.3	0.4	9.0	3094.8	-7.8
199	0011 1001	3069.38	3115.0	-2.6	0.4	27.6	3110.6	6.4
200	0011 1000	3085.00	3116.0	-0.4	-0.4	1.0	3116.5	-10.1
201	0011 0111	3100.63	3138.8	-0.1	-0.2	27.8	3142.3	-3.5
202	0011 0110	3116.25	3151.4	-3.3	0.3	12.7	3153.1	-6.6
203	0011 0101	3131.88	3175.6	0.4	0.4	24.1	3173.9	1.7
204	0011 0100	3147.50	3191.2	-0.4	0.0	15.6	3189.7	1.5
205	0011 0011	3163.13	3206.2	-0.3	-0.3	15.0	3201.5	0.2
206	0011 0010	3178.75	3219.1	-0.1	-0.2	12.9	3221.3	-2.0
207	0011 0001	3194.38	3242.1	0.4	0.4	23.0	3237.1	5.6
208	0011 0000	3210.00	3253.1	-0.2	0.2	10.9	3253.0	0.1
209	0010 1111	3225.63	3265.1	-0.3	-0.3	12.0	3268.3	-1.2

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 171
 1981/11/30 11:00:28 PENALTY FULL PERFORMANCE @ ADJUTANT TEST.
 PLANT 11/30/81 11:00:28 THEMATIC MAPPER MUX UNIT TEST CHANNEL 1 11/30/81 11:00:28



01/30/81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO 1:1 NOMINAL LOWER UPPER	INCREASE FROM FIG 0 THRESHOLD	FIG 0 POINT	THRESHOLD DEVIATION
210 0010 1110	3241.25	3276.3 -0.4 -0.4	11.2	3241.25	-0.4
211 0010 1101	3256.88	3302.7 0.3 -0.0	26.4	3256.88	0.3
212 0010 1100	3272.50	3318.3 0.3 0.4	15.6	3272.50	0.3
213 0010 1011	3288.13	3332.7 0.0 0.3	14.4	3288.13	0.2
214 0010 1010	3303.75	3343.5 -0.3 -0.2	10.7	3303.75	-0.2
215 0010 1001	3319.38	3370.0 -0.1 -0.4	26.5	3319.38	-0.4
216 0010 1000	3335.00	3374.2 0.4 0.3	4.2	3335.00	0.3
217 0010 0111	3350.63	3393.0 0.2 0.4	18.8	3350.63	0.4
218 0010 0110	3366.25	3402.9 -0.3 0.0	10.0	3366.25	-0.3
219 0010 0101	3381.88	3430.6 -0.5 -0.4	27.6	3381.88	-0.4
220 0010 0100	3397.50	3449.6 -0.1 -0.4	19.0	3397.50	-0.4
221 0010 0011	3413.13	3460.6 0.5 0.5	11.0	3413.13	0.5
222 0010 0010	3428.75	3475.1 0.0 0.4	14.5	3428.75	0.4
223 0010 0001	3444.38	3497.6 -0.6 -0.4	22.5	3444.38	-0.4
224 0010 0000	3460.00	3505.3 -0.4 -0.5	7.7	3460.00	-0.5
225 0001 1111	3475.63	3519.2 0.3 0.0	14.0	3475.63	0.3
226 0001 1110	3491.25	3529.2 0.4 0.5	10.0	3491.25	0.5
227 0001 1101	3506.88	3557.0 -0.0 0.8	27.7	3506.88	0.8
228 0001 1100	3522.50	3570.1 -0.3 -0.3	13.1	3522.50	-0.3
229 0001 1011	3538.13	3587.5 -0.1 -0.2	17.5	3538.13	-0.2
230 0001 1010	3553.75	3596.3 0.2 0.2	8.8	3553.75	0.2
231 0001 1001	3569.38	3624.6 0.3 0.5	23.3	3569.38	0.5
232 0001 1000	3585.00	3628.6 -0.4 0.0	4.0	3585.00	-0.4
233 0001 0111	3600.63	3648.3 -0.5 -0.4	19.7	3600.63	-0.4
234 0001 0110	3616.25	3661.0 -3.6 -0.4	12.7	3616.25	-0.4
235 0001 0101	3631.88	3685.7 0.2 0.3	14.7	3631.88	0.3
236 0001 0100	3647.50	3701.1 -0.1 0.3	15.4	3647.50	0.3

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IS-236 THERMATIC MATTER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 1/2

981211/30 11:00:38 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

237-240 AND THRESHOLD TEST (HAND- 10 SECONDS)



NOV 30 '81

THRESHOLD NUMBER	AND OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM FIG V THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3716.5	-0.3	0.1	15.4	3711.6	4.9
238	0001 0010	3678.75	3729.1	-0.3	-0.4	12.6	3727.4	1.7
239	0001 0001	3694.38	3752.8	0.5	0.0	23.7	3750.2	9.8
240	0001 0000	3710.00	3767.4	0.3	0.4	14.6	3759.0	3.7
241	0000 1111	3725.63	3775.5	-0.0	0.4	8.1	3774.8	0.7
242	0000 1110	3741.25	3786.5	-0.5	-0.4	11.0	3790.3	-4.1
243	0000 1101	3756.88	3814.0	-0.1	-0.4	27.5	3806.4	7.6
244	0000 1100	3772.50	3827.9	0.4	0.5	13.9	3822.2	1.7
245	0000 1011	3788.13	3843.9	0.1	0.4	16.0	3833.1	5.0
246	0000 1010	3803.75	3854.5	-0.3	0.0	10.6	3851.9	0.7
247	0000 1001	3819.38	3881.7	-0.8	-0.5	27.2	3879.7	12.0
248	0000 1000	3835.00	3889.9	-0.1	0.3	8.2	3881.5	1.3
249	0000 0111	3850.63	3904.6	0.4	0.4	14.7	3901.3	0.3
250	0000 0110	3866.25	3914.1	-0.0	0.4	9.5	3917.1	-3.0
251	0000 0101	3881.88	3942.7	-0.5	-0.4	28.6	3932.9	9.8
252	0000 0100	3897.50	3962.1	-0.6	-0.4	19.3	3931.9	14.1
253	0000 0011	3913.13	3973.3	0.2	-0.1	11.2	3954.6	13.8
254	0000 0010	3928.75	3987.2	0.2	0.5	13.9	3980.4	3.9
255	0000 0001	3944.38	4010.4	-0.6	0.1	23.2	3983.2	14.2

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HAC
 1957
 027

42 30 8

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 = THRESH INC = 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

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DEVIATION OF SLOPE FROM IDEAL IS: 1.109%
OFFSET IS:-37.1MV
COEFFICIENT OF DETERMINATION IS: R**2= .99998440
ANALOG INPUT DURING PG RESTORE IS:64.5MV

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REF ID: A66544

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 11-11-2001 BY 60322 UCBAW

REFERS: 1 UNIT OF OUTPUT LEVELS PATTERN = 1 1 1

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OF FAIRER QUALITY

TEST PASSED

HS-236 THERMATIC MATTER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 1/4

1981/11/10 11:02:14 TENDUITY FULL PERFORMANCE @ AMBIENT TEMP.

11-22-81 11-22-81 11-22-81 11-22-81 11-22-81 11-22-81 11-22-81 11-22-81 11-22-81 11-22-81

HAC
11/21
11/21

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREVIOUS THRESHOLD	PERCENT OF SPECIFIED VALUE POINT DEVIATION
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THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-27.3	-0.5	-0.2		-24.3	-4.0
2	1111 1110	-8.750	-14.3	0.2	0.2	13.0	-11.5	-8.8
3	1111 1101	6.875	8.6	-0.1	0.2	22.9	10.3	-1.2
4	1111 1100	22.500	22.7	-0.3	-0.3	14.1	24.1	-3.4
5	1111 1011	38.125	39.9	-0.3	-0.2	17.2	41.9	-2.0
6	1111 1010	53.750	52.3	0.3	0.0	12.4	57.2	-5.4
7	1111 1001	69.375	75.6	0.2	0.3	23.3	71.5	2.1
8	1111 1000	85.000	81.4	-0.0	0.2	5.8	87.4	-2.2
9	1111 0111	100.625	100.8	-0.2	-0.2	19.4	101.2	-4.3
10	1111 0110	116.250	116.0	-0.1	-0.1	15.2	121.0	-4.2
11	1111 0101	131.875	136.5	0.2	0.2	20.4	137.3	-0.3
12	1111 0100	147.500	154.4	0.1	0.2	17.9	152.6	1.1
13	1111 0011	163.125	167.8	-0.3	0.0	13.4	168.4	-0.6
14	1111 0010	178.750	183.7	-0.3	-0.2	15.9	184.2	-0.5
15	1111 0001	194.375	203.6	-0.1	-0.2	19.9	200.0	3.6
16	1111 0000	210.000	213.6	0.2	0.1	9.9	211.2	-2.1
17	1110 1111	225.625	227.9	-0.1	0.3	14.3	231.6	-1.2
18	1110 1110	241.250	241.7	-0.3	-0.3	13.9	247.1	-1.2
19	1110 1101	256.875	264.0	-0.3	-0.2	22.3	261.3	0.3
20	1110 1100	272.500	280.6	0.2	0.0	16.6	280.1	1.6
21	1110 1011	288.125	294.8	0.2	0.3	14.2	294.9	0.6
22	1110 1010	303.750	308.3	0.0	0.2	13.9	310.1	-2.3
23	1110 1001	319.375	331.0	-0.3	-0.2	22.7	326.1	4.5
24	1110 1000	335.000	340.8	-0.0	-0.2	9.8	342.3	1.5
25	1110 0111	350.625	355.7	0.2	0.3	14.9	351.1	-2.5

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 175

1981/11/30 11:07:14 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.11.3.5-B A/D THRESHOLD TEST (BAND= 1, SENSOR=10)

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	369.8	0.1	0.2	14.1	373.9	-4.2
27	1110 0101	381.875	391.7	-0.3	0.0	21.9	389.8	7.0
28	1110 0100	397.500	412.2	-0.3	-0.3	20.5	405.6	6.7
29	1110 0011	413.125	422.7	0.0	-0.3	10.4	421.4	1.3
30	1110 0010	428.750	439.3	0.2	0.2	16.6	437.2	2.1
31	1110 0001	444.375	458.4	-0.1	0.2	19.1	453.0	5.4
32	1110 0000	460.000	463.4	-0.2	-0.2	5.0	468.8	-5.4
33	1101 1111	475.625	482.5	-0.2	-0.2	19.1	484.6	-2.1
34	1101 1110	491.250	494.8	0.3	0.0	17.3	500.4	-5.7
35	1101 1101	506.875	518.2	0.2	0.3	23.4	516.7	2.0
36	1101 1100	522.500	532.0	-0.0	0.2	13.8	532.1	-0.0
37	1101 1011	538.125	549.4	-0.2	-0.2	17.4	547.9	1.6
38	1101 1010	553.750	561.1	-0.0	-0.2	11.7	563.7	-2.5
39	1101 1001	569.375	584.9	0.2	0.2	23.7	579.5	5.4
40	1101 1000	585.000	593.1	0.2	0.2	8.2	595.3	-2.2
41	1101 0111	600.625	610.0	-0.3	-0.0	16.9	611.1	-1.1
42	1101 0110	616.250	625.1	-0.3	-0.2	15.1	626.9	-1.8
43	1101 0101	631.875	645.8	-0.1	-0.3	20.7	642.7	3.1
44	1101 0100	647.500	663.7	0.2	0.2	17.8	658.5	5.1
45	1101 0011	663.125	676.5	-0.0	0.2	17.8	674.4	2.1
46	1101 0010	678.750	691.8	-0.3	-0.3	15.3	690.2	1.6
47	1101 0001	694.375	712.3	-0.7	-0.2	20.5	706.0	6.3
48	1101 0000	710.000	725.9	0.3	-0.0	13.6	721.8	4.1
49	1100 1111	725.625	736.3	0.2	0.3	10.4	737.6	-1.2
50	1100 1110	741.250	749.3	-0.0	0.3	12.9	753.4	-4.1
51	1100 1101	756.875	772.3	-0.2	-0.2	23.0	769.2	3.1

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1961/11/30 11:07:14 FINAL HY FUEL PERFORMANCE @ AMBIENT TEMP.

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03-76-1470-11 05/89 01-RF-12-HH D RFST CHAND= 1, SENSOR=10
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THRESHOLD A/D OUTPUT NUMBER	THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO-- NOMINAL	LOWER	1:1 DIFFER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT	DEVIATION	
52	1100	1100	772.500	789.1	-0.1	-0.2	16.8	785.0	4.1
53	1100	1011	788.125	802.8	0.2	0.2	13.7	800.8	2.0
54	1100	1010	803.750	815.4	0.2	0.2	12.6	816.7	-1.2
55	1100	1001	819.375	833.5	-0.2	-0.0	23.1	832.5	6.1
56	1100	1000	835.000	850.9	-0.1	-0.1	12.3	848.3	2.6
57	1100	0111	850.625	863.3	0.0	-0.3	12.5	864.1	-0.7
58	1100	0110	866.250	878.4	-1.2	-1.6	15.0	879.9	-1.5
59	1100	0101	881.875	893.7	-0.0	0.2	20.3	895.7	2.9
60	1100	0100	897.500	919.3	-0.4	-0.3	20.6	911.5	7.8
61	1100	0011	913.125	929.5	-0.2	-0.2	10.2	927.3	2.2
62	1100	0010	928.750	943.2	0.3	0.0	15.7	943.1	2.1
63	1100	0001	944.375	964.8	0.3	0.2	19.5	958.9	5.8
64	1100	0000	960.000	977.8	-0.0	0.1	17.0	974.8	3.1
65	1011	1111	975.625	992.4	-0.3	-0.3	14.5	990.6	1.8
66	1011	1110	991.250	1004.0	-0.0	-0.2	11.7	1006.4	-2.3
67	1011	1101	1006.88	1027.6	0.2	0.2	23.6	1022.2	5.4
68	1011	1100	1022.500	1041.3	0.2	0.2	13.6	1038.0	3.3
69	1011	1011	1038.125	1059.1	-0.2	0.0	17.8	1053.8	5.2
70	1011	1010	1053.750	1069.4	-0.2	-0.1	10.4	1069.6	-0.2
71	1011	1001	1069.375	1093.8	0.2	-0.1	24.3	1081.4	8.3
72	1011	1000	1085.000	1098.5	0.2	0.2	4.7	1101.2	-2.8
73	1011	0111	1100.625	1118.8	0.0	0.2	20.3	1117.1	1.7
74	1011	0110	1116.250	1133.4	-0.3	-0.3	14.6	1132.9	0.5
75	1011	0101	1131.875	1154.2	-0.3	-0.2	20.8	1148.7	5.5
76	1011	0100	1147.500	1171.1	0.2	-0.1	16.8	1164.5	6.6
77	1011	0011	1163.125	1185.4	0.1	0.1	14.4	1180.3	5.1
78	1011	0010	1178.750	1199.3	-0.2	0.0	13.9	1196.1	3.2

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US 236 THERMATIC MASTER MIX UNIT TEST MODEL... FLT. S/N 3 PAGE 177

1981/11/30 11:02:14 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.7.13.15-4 AND THRESHOLD TEST (RAND= 1, SENSOR=10)



EX 30 31

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1220.7	-0.2	-0.2	21.3	1211.9	8.7
80	1011 0000	1210.00	1233.0	0.0	-0.1	12.3	1227.7	5.3
81	1010 1111	1225.63	1244.5	0.3	0.2	11.5	1243.5	0.9
82	1010 1110	1241.25	1256.7	0.4	0.3	12.2	1259.4	-2.7
83	1010 1101	1256.88	1280.2	-0.3	-0.1	23.5	1275.2	5.0
84	1010 1100	1272.50	1297.9	-0.3	-0.3	15.7	1291.0	5.0
85	1010 1011	1288.13	1311.0	0.3	0.0	15.1	1306.8	4.2
86	1010 1010	1303.75	1322.4	0.0	0.0	11.4	1322.6	-0.2
87	1010 1001	1319.38	1345.9	0.0	0.3	23.4	1338.4	7.5
88	1010 1000	1335.00	1375.0	-0.1	-0.1	9.1	1354.2	0.8
89	1010 0111	1350.63	1370.9	0.0	0.0	15.9	1370.0	0.8
90	1010 0110	1366.25	1385.7	0.3	0.0	14.8	1385.8	-0.1
91	1010 0101	1381.88	1406.1	0.2	0.3	20.4	1401.7	4.4
92	1010 0100	1397.50	1426.8	-0.2	0.0	20.7	1417.5	9.3
93	1010 0011	1413.13	1437.7	-0.2	-0.2	10.9	1433.3	4.4
94	1010 0010	1428.75	1452.5	-0.1	-0.3	14.9	1449.1	3.5
95	1010 0001	1444.38	1472.3	0.3	0.4	19.8	1464.9	7.4
96	1010 0000	1460.00	1491.1	0.2	0.2	8.8	1480.7	0.4
97	1001 1111	1475.63	1496.4	-0.3	-0.0	15.3	1496.5	-0.1
98	1001 1110	1491.25	1507.3	-0.2	-0.2	10.8	1512.3	-5.1
99	1001 1101	1506.88	1531.5	0.3	-0.0	24.2	1528.1	3.3
100	1001 1100	1522.50	1544.0	0.3	0.3	12.5	1543.9	0.1
101	1001 1011	1538.13	1562.5	0.0	0.3	18.5	1559.8	2.7
102	1001 1010	1553.75	1572.6	-0.3	-0.3	10.1	1575.6	-3.0
103	1001 1001	1569.38	1592.8	-0.3	-0.3	25.2	1591.4	6.4
104	1001 1000	1585.00	1604.8	0.1	0.0	7.0	1607.2	-2.4

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HS-736 THERMATIC MAPPER MUX UNIT TEST MODEL.. F11. S/N 3 PAGE 178

1981/11/30 11:07:14 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4.1.1.1.1.1.1 AND THRESHOLD TEST (RAND= 1 - SENSOR=10)

THRESHOLD AND OUTPUT MODE (T) THRESHOLD	IDEAL VALUE (40V)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
105 1001 0111	1600.63	1622.5 0.2 0.2	17.6	1623.0 -0.5
106 1001 0110	1616.25	1636.6 -0.4 -0.1	14.1	1638.8 -2.3
107 1001 0101	1631.88	1658.0 -0.3 -0.4	21.4	1654.6 3.4
108 1001 0100	1647.50	1675.0 0.0 -0.3	17.0	1670.4 4.6
109 1001 0011	1663.13	1689.0 0.3 0.3	13.9	1686.2 2.7
110 1001 0010	1678.75	1702.1 0.3 0.2	13.2	1702.1 0.1
111 1001 0001	1694.38	1724.1 -0.3 -0.0	21.9	1717.9 6.2
112 1001 0000	1710.00	1740.2 -0.2 -0.2	16.1	1733.7 6.6
113 1000 1111	1725.63	1748.2 0.3 0.0	7.9	1749.5 -1.3
114 1000 1110	1741.25	1759.7 0.1 0.3	11.5	1765.3 -5.6
115 1000 1101	1756.88	1783.4 0.0 0.3	23.7	1781.1 2.3
116 1000 1100	1772.50	1799.4 -0.4 -0.2	16.0	1796.9 2.5
117 1000 1011	1788.13	1814.6 -0.2 -0.1	15.2	1812.7 1.8
118 1000 1010	1803.75	1825.3 0.3 0.0	10.7	1828.5 -3.3
119 1000 1001	1819.38	1849.5 0.2 0.3	24.2	1844.4 5.1
120 1000 1000	1835.00	1861.7 -0.3 -0.1	12.3	1860.2 1.6
121 1000 0111	1850.63	1874.6 -0.3 -0.3	12.8	1876.0 -1.4
122 1000 0110	1866.25	1888.9 0.0 -0.4	14.3	1891.8 -2.9
123 1000 0101	1881.88	1909.5 0.3 0.3	20.6	1907.6 1.9
124 1000 0100	1897.50	1930.0 0.2 0.4	20.5	1923.4 6.6
125 1000 0011	1913.13	1941.0 -0.3 0.0	10.9	1939.2 1.7
126 1000 0010	1928.75	1955.3 -0.3 -0.2	14.4	1955.0 0.3
127 1000 0001	1944.38	1975.5 0.3 -0.0	20.1	1970.8 4.6
128 1000 0000	1960.00	1984.7 0.2 0.2	9.2	1986.2 -2.0
129 0111 1111	1975.63	1997.5 0.0 0.3	12.8	2002.5 -5.0
130 0111 1110	1991.25	2009.8 -0.4 -0.4	12.3	2018.3 -0.4

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3.1.3.5-1) A/D THRESHOLD TEST (RAND= 1, SENSOR=10)

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"5.1.1.4."=10 201, (THRESHOLD 10 201 (COND= 1, SENSOR=10))

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TOTAL VOLTAGE (MV)	ANALOG INPUT VOLTAGE (MV)		INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
			NOMINAL	LEVELS RATIO= LOWER		POINT	DEVIATION	
210	0010 1110	3241.25	3274.7	0.1	-0.0	10.6	3283.1	-8.5
211	0010 1101	3256.38	3301.2	0.4	-0.1	26.6	3299.0	2.3
212	0010 1100	3272.50	3315.0	0.4	0.6	13.8	3314.8	0.3
213	0010 1011	3288.13	3331.1	-0.0	0.5	16.1	3330.6	0.6
214	0010 1010	3303.75	3341.9	-0.4	-0.5	10.8	3346.4	-4.4
215	0010 1001	3319.38	3367.0	-0.4	-0.4	24.0	3362.2	3.8
216	0010 1000	3335.00	3373.0	0.4	6.4	7.1	3378.0	-5.0
217	0010 0111	3350.63	3371.5	0.2	0.2	18.5	3393.8	-2.3
218	0010 0110	3366.25	3407.8	-0.6	6.0	14.2	3409.6	-4.8
219	0010 0101	3381.88	3429.3	-0.6	-0.5	23.5	3425.4	3.8
220	0010 0100	3397.50	3448.2	0.0	-0.3	19.0	3441.3	7.0
221	0010 0011	3413.13	3469.3	0.4	0.5	11.1	3467.1	2.2
222	0010 0010	3428.75	3473.3	0.4	0.3	14.0	3472.9	0.4
223	0010 0001	3444.38	3494.3	-0.6	-0.5	21.0	3488.7	5.6
224	0010 0000	3460.00	3503.7	-0.4	-6.4	9.4	3504.1	-0.8
225	0001 1111	3475.63	3518.1	0.4	-0.0	14.4	3520.3	-2.2
226	0001 1110	3491.25	3538.0	0.4	0.5	9.8	3536.1	-8.1
227	0001 1101	3506.88	3555.8	-0.1	0.4	27.8	3551.9	3.9
228	0001 1100	3522.50	3568.7	-0.5	-0.4	12.9	3567.7	0.9
229	0001 1011	3538.13	3586.8	-0.1	-0.4	17.7	3583.5	2.8
230	0001 1010	3553.75	3594.6	0.4	0.6	8.3	3599.4	-4.7
231	0001 1001	3569.38	3620.6	0.3	2.9	26.0	3615.2	5.4
232	0001 1000	3585.00	3627.2	-0.6	-0.1	6.6	3631.0	-3.8
233	0001 0111	3600.63	3647.0	-0.5	-0.4	19.8	3646.8	0.2
234	0001 0110	3616.25	3659.8	-0.1	-0.6	12.8	3662.6	-2.8
235	0001 0101	3631.88	3684.1	0.4	0.5	24.3	3678.4	5.7
236	0001 0100	3647.50	3699.8	-0.1	0.4	15.7	3694.2	5.6

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0.0.0.0-0 A/D THRESHOLD IS 1000 (RAND= 1, SENSOR=10)
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THRESHOLD NUMBER	X/Y THRESHOLD	IDEAL VALUE (MV)	AVERAGE INPUT VOLTAGE (MV)		INCREASE FROM PREVIOUS THRESHOLD	BEST FIT STRAIGHT LINE		
			LEVELS RATIO - NOMINAL	LOWER UPPER		POINT	DEVIATION	
237	0001 0011	3663.13	3715.2	-0.7	-0.6	15.4	3710.0	5.2
238	0001 0010	3678.75	3727.5	-1.1	-0.6	12.3	3725.8	1.6
239	0001 0001	3694.38	3749.1	0.5	0.1	21.7	3741.7	7.5
240	0001 0000	3710.00	3765.9	0.4	0.5	16.8	3757.5	8.7
241	0000 1111	3725.63	3774.3	-0.1	0.5	8.4	3773.3	1.0
242	0000 1110	3741.25	3785.1	-0.5	-0.4	10.8	3789.1	-4.0
243	0000 1101	3756.88	3812.6	-0.2	-0.5	27.5	3804.9	7.7
244	0000 1100	3772.50	3826.4	0.4	0.6	13.8	3820.7	5.7
245	0000 1011	3788.13	3842.2	0.4	0.4	15.8	3836.5	5.7
246	0000 1010	3803.75	3852.9	-0.6	-0.0	10.7	3852.3	0.6
247	0000 1001	3819.38	3879.8	-0.5	-0.3	26.8	3868.1	11.6
248	0000 1000	3835.00	3888.9	-0.0	-0.5	9.2	3884.0	5.0
249	0000 0111	3850.63	3903.1	0.4	0.6	14.2	3899.8	3.4
250	0000 0110	3866.25	3916.4	-0.2	0.6	13.2	3915.6	0.8
251	0000 0101	3881.88	3941.3	-0.9	-0.5	24.9	3931.4	9.9
252	0000 0100	3897.50	3960.4	-0.3	-0.2	19.1	3947.2	13.2
253	0000 0011	3913.13	3971.6	0.5	0.0	11.2	3963.0	8.6
254	0000 0010	3928.75	3985.4	0.3	0.4	13.8	3978.8	6.6
255	0000 0001	3944.38	4006.3	-0.2	0.2	20.9	3994.6	11.2

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HS-226 AUTOMATIC MONITOR BOX UNIT TEST MODEL 1111 S/N 3 PAGE 186

1981/11/20 11:13:11 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TESTING CONDITIONS: 20°C, 50% RH, 1000 FT. ELEVATION, 10-5000 Hz BANDWIDTH, 10-5000 Hz SENSITIVITY = 100 dB



REV 30 '81

TEST STEP ID NUMBER	A/D OUTPUT THRESHOLD	TOTAL VOLTAGE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	373.0	0.3	0.4	15.3	325.7	-2.7
27	1110 0101	381.250	393.2	-0.0	0.3	20.3	391.5	1.7
28	1110 0100	392.500	414.4	-0.6	0.7	21.2	407.3	7.1
29	1110 0011	413.125	424.6	0.0	-0.2	10.2	423.1	1.5
30	1110 0010	428.250	440.8	0.2	0.1	16.1	438.9	1.8
31	1110 0001	444.375	460.3	0.1	0.1	19.5	454.7	5.5
32	1110 0000	460.000	465.1	0.1	0.0	4.8	470.5	-5.4
33	1101 1111	475.625	484.4	-0.3	-0.2	19.3	486.3	-2.0
34	1101 1110	491.250	496.0	-0.0	-0.2	11.6	502.2	-6.2
35	1101 1101	506.875	521.0	0.4	0.2	25.0	518.0	3.1
36	1101 1100	522.500	534.2	-0.1	0.7	13.1	535.8	0.4
37	1101 1011	538.125	551.2	-0.2	-0.1	17.0	549.6	1.6
38	1101 1010	553.750	562.5	0.0	0.1	11.2	565.4	-2.9
39	1101 1001	569.375	586.4	0.3	0.0	23.9	581.2	5.2
40	1101 1000	585.000	594.8	0.4	0.4	8.4	597.0	-2.2
41	1101 0111	600.625	611.6	-0.0	0.2	16.8	612.8	-1.2
42	1101 0110	616.250	626.1	-0.3	0.3	14.5	628.6	-2.5
43	1101 0101	631.875	647.4	-0.0	-0.3	21.3	644.4	3.0
44	1101 0100	647.500	664.5	0.6	0.8	17.0	660.2	4.2
45	1101 0011	663.125	673.4	0.1	0.2	13.9	676.0	2.3
46	1101 0010	678.750	693.6	-0.2	0.0	14.6	691.8	1.2
47	1101 0001	694.375	713.8	-0.1	-0.0	20.8	707.6	6.2
48	1101 0000	710.000	727.4	-0.0	0.4	13.6	723.5	4.0
49	1100 1111	725.625	738.0	0.3	0.3	10.6	739.3	-1.2
50	1100 1110	741.250	759.1	-0.1	0.4	17.0	755.1	-5.0
51	1100 1101	756.875	775.2	-0.5	-0.4	25.1	770.9	4.3

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THRESHOLD NUMBER	A/D THRESHOLD	OUTPUT THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE NOMINAL	FLUX RATIO- LOWER	(MV) 1 : 1 UPPER	INCREASE FROM PREV THRESHOLD	FIRST FIT STRAIGHT LINE POINT	DEVIATION
52	1100	1100	772.500	792.2	-0.8	-0.8	17.0	786.7	5.5
53	1100	1011	788.125	804.5	0.2	0.0	12.3	802.5	2.1
54	1100	1010	803.750	816.6	0.3	0.3	12.1	818.3	-1.7
55	1100	1001	819.375	839.7	0.0	0.3	23.1	834.1	5.6
56	1100	1000	835.000	852.3	0.1	0.1	12.5	849.9	2.4
57	1100	0111	850.625	865.0	0.0	-0.2	12.7	865.7	-0.8
58	1100	0110	866.250	879.5	0.4	0.3	14.5	881.5	-2.0
59	1100	0101	881.875	900.1	0.4	0.2	20.6	897.3	2.8
60	1100	0100	897.500	921.5	-0.8	0.0	21.3	913.1	8.3
61	1100	0011	913.125	931.3	-0.2	-0.2	9.8	928.9	2.3
62	1100	0010	928.750	946.6	0.0	0.0	15.4	944.7	1.9
63	1100	0001	944.375	966.3	0.1	0.1	19.6	960.6	5.7
64	1100	0000	960.000	979.2	0.0	0.4	12.9	976.4	2.8
65	1011	1111	975.625	993.9	-0.3	-0.2	14.7	992.2	1.7
66	1011	1110	991.250	1004.7	-0.1	-0.2	10.9	1008.0	-3.2
67	1011	1101	1006.88	1030.2	0.6	0.0	25.5	1023.8	6.4
68	1011	1100	1022.50	1042.0	0.7	0.6	11.8	1039.6	2.4
69	1011	1011	1038.13	1060.4	0.0	0.0	18.4	1055.4	5.0
70	1011	1010	1053.75	1070.6	-0.0	-0.0	16.2	1071.2	-0.6
71	1011	1001	1069.38	1095.3	0.0	-0.5	24.7	1087.0	8.3
72	1011	1000	1085.00	1099.8	0.5	0.5	4.5	1102.8	-3.0
73	1011	0111	1100.63	1120.3	0.1	0.1	20.5	1118.6	1.7
74	1011	0110	1116.25	1134.0	-0.2	-0.0	13.6	1134.4	-0.5
75	1011	0101	1131.88	1155.5	1.2	1.2	21.5	1150.2	5.2
76	1011	0100	1147.50	1172.2	0.0	0.8	16.7	1166.0	6.2
77	1011	0011	1163.13	1187.0	0.2	0.1	14.7	1181.9	5.1
78	1011	0010	1178.75	1200.3	0.0	0.2	13.4	1197.7	2.2

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HS-254 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 180

1981/11/30 11:13:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4.4.2.5-B AND THRESHOLD TEST (BAND= 1 * SENSOR=11)



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THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
79 1011 0001	1194.38	1221.6 0.1 0.1	21.2	1213.5 8.1
80 1011 0000	1210.00	1234.1 0.2 0.1	12.5	1229.3 4.8
81 1010 1111	1225.63	1245.9 0.2 0.0	11.8	1245.1 0.8
82 1010 1110	1241.25	1257.4 0.1 0.2	11.5	1260.9 -3.5
83 1010 1101	1256.88	1282.4 -0.1 0.8	25.0	1276.7 5.7
84 1010 1100	1272.50	1298.4 -0.5 -0.6	16.0	1292.5 5.9
85 1010 1011	1288.13	1312.6 0.0 -0.1	14.2	1308.3 4.3
86 1010 1010	1303.75	1323.6 0.1 0.1	11.0	1324.1 -0.5
87 1010 1001	1319.38	1346.7 0.7 0.7	23.1	1339.9 6.8
88 1010 1000	1335.00	1358.0 0.0 -0.1	9.3	1355.7 0.3
89 1010 0111	1350.63	1372.6 -0.2 -0.2	16.5	1371.5 1.0
90 1010 0110	1366.25	1386.6 -0.0 -0.2	14.0	1387.3 -0.8
91 1010 0101	1381.88	1408.8 -1.3 -1.2	22.2	1403.2 5.6
92 1010 0100	1397.50	1426.9 -0.1 0.5	18.1	1419.0 8.0
93 1010 0011	1413.13	1439.1 -0.1 -0.1	12.1	1434.8 4.3
94 1010 0010	1428.75	1453.7 -0.1 -0.3	14.6	1450.6 3.1
95 1010 0001	1444.38	1473.5 0.0 -0.0	19.8	1466.4 7.2
96 1010 0000	1460.00	1482.2 0.0 -0.3	8.7	1482.2 0.0
97 1001 1111	1475.63	1497.4 0.0 0.3	15.1	1498.0 -0.6
98 1001 1110	1491.25	1507.9 -0.2 -0.3	10.5	1513.8 -5.9
99 1001 1101	1506.88	1534.5 0.0 -0.6	26.6	1529.6 4.9
100 1001 1100	1522.50	1546.0 0.2 0.9	11.5	1545.4 0.6
101 1001 1011	1538.13	1564.0 0.0 0.1	18.0	1561.2 2.8
102 1001 1010	1553.75	1573.7 -0.1 -0.1	9.7	1577.0 -3.3
103 1001 1001	1569.38	1599.0 -0.4 -0.4	25.2	1592.8 6.1
104 1001 1000	1585.00	1606.8 0.0 -0.7	7.8	1608.6 -1.9

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 189

1981/11/30 11:13:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.1.5-B A/D THRESHOLD TEST (HAND= 1, SENSOR=11)

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TEST
S27

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
105	1001 0111	1600.63	1623.8	0.2	0.2	17.0	1624.4	-0.7
106	1001 0110	1616.25	1636.8	-0.1	0.2	13.0	1650.3	-3.5
107	1001 0101	1631.88	1660.8	-0.6	-0.6	24.0	1656.1	4.8
108	1001 0100	1647.50	1675.9	-0.8	-0.7	15.1	1671.9	4.1
109	1001 0011	1663.13	1690.5	0.0	-0.1	14.6	1687.7	2.8
110	1001 0010	1678.75	1703.2	0.2	0.4	12.7	1703.5	-0.2
111	1001 0001	1694.38	1724.9	0.0	0.2	21.7	1719.3	5.6
112	1001 0000	1710.00	1741.2	0.3	0.2	16.3	1735.1	6.1
113	1000 1111	1725.63	1749.8	0.0	-0.4	8.6	1750.9	-1.1
114	1000 1110	1741.25	1760.2	0.1	0.1	10.5	1766.7	-6.5
115	1000 1101	1756.88	1785.8	0.6	0.6	25.6	1782.5	3.3
116	1000 1100	1772.50	1802.4	-0.8	0.1	16.6	1798.3	4.1
117	1000 1011	1788.13	1816.0	-0.2	-0.2	13.6	1814.1	1.9
118	1000 1010	1803.75	1826.5	0.0	-0.1	10.5	1829.9	-3.4
119	1000 1001	1819.38	1850.5	0.4	0.5	23.9	1845.7	4.7
120	1000 1000	1835.00	1862.7	0.0	0.1	12.2	1861.6	1.1
121	1000 0111	1850.63	1875.9	-0.3	-0.2	13.1	1877.4	-1.5
122	1000 0110	1866.25	1889.3	-0.1	-0.1	13.4	1893.2	-3.9
123	1000 0101	1881.88	1912.0	0.6	-0.1	22.7	1909.0	3.0
124	1000 0100	1897.50	1930.4	0.8	0.7	18.4	1924.8	5.6
125	1000 0011	1913.13	1942.2	0.0	0.1	11.7	1940.6	1.6
126	1000 0010	1928.75	1956.6	-0.4	-0.2	14.4	1956.4	0.2
127	1000 0001	1944.38	1976.9	-0.1	-0.3	20.3	1972.2	4.7
128	1000 0000	1960.00	1986.7	0.5	0.4	9.7	1988.0	-1.3
129	0111 1111	1975.63	1998.9	-0.0	-0.0	12.2	2003.8	-4.9
130	0111 1110	1991.25	2010.2	-0.2	-0.1	11.3	2019.6	-9.5

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HS-234 THEMATIC MAPPER PUX UNIT TEST MODEL., FLT. S/N 3 PAGE 190

1981/11/30 11:13:51 FIDALITY FULL PERFORMANCE @ AMBIENT TEMP.

3.1.1. 1.1.1. AND THRESHOLD TEST (RAND= 1, SENSOR=11)

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TEST
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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (V)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1:1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2036.1	-0.6	-0.5	25.9	2035.4	0.6
132	0111 1100	2022.50	2048.3	0.9	0.2	12.3	2051.2	-2.9
133	0111 1011	2038.13	2066.0	0.1	0.1	17.6	2067.0	-1.1
134	0111 1010	2053.75	2076.3	0.0	0.3	10.3	2082.9	-6.6
135	0111 1001	2069.38	2102.3	-0.5	-0.6	26.1	2098.7	3.7
136	0111 1000	2085.00	2104.8	-0.7	-0.7	2.5	2114.5	-9.7
137	0111 0111	2100.63	2125.9	-0.0	-0.0	21.1	2130.3	-4.3
138	0111 0110	2116.25	2139.5	0.0	0.0	13.5	2146.1	-6.6
139	0111 0101	2131.88	2162.6	-0.9	-0.1	23.1	2161.9	0.7
140	0111 0100	2147.50	2178.7	-1.1	-1.1	16.1	2177.7	1.0
141	0111 0011	2163.13	2192.8	-0.0	-0.3	14.0	2193.5	-0.7
142	0111 0010	2178.75	2206.5	0.2	0.1	13.8	2209.3	-2.8
143	0111 0001	2194.38	2228.0	0.4	-0.7	21.5	2225.1	2.9
144	0111 0000	2210.00	2236.8	-0.0	-0.0	8.7	2240.9	-4.2
145	0110 1111	2225.63	2251.3	-0.1	-0.2	14.5	2256.7	-5.4
146	0110 1110	2241.25	2262.9	0.1	-0.0	11.6	2272.5	-9.6
147	0110 1101	2256.88	2287.8	0.6	0.6	24.8	2288.3	-0.6
148	0110 1100	2272.50	2304.5	-0.0	0.9	16.7	2304.1	0.3
149	0110 1011	2288.13	2318.3	-0.1	-0.0	13.8	2320.0	-1.7
150	0110 1010	2303.75	2329.9	-0.3	-0.3	11.6	2335.8	-5.9
151	0110 1001	2319.38	2354.0	0.6	-0.0	24.1	2351.6	2.5
152	0110 1000	2335.00	2360.5	0.4	0.4	6.4	2367.4	-6.9
153	0110 0111	2350.63	2378.0	0.0	0.0	17.6	2383.2	-5.1
154	0110 0110	2366.25	2392.4	-0.3	-0.3	14.4	2399.0	-6.6
155	0110 0101	2381.88	2414.7	0.0	-0.8	22.3	2414.8	-0.1
156	0110 0100	2397.50	2433.5	0.8	0.9	18.7	2430.6	2.9
157	0110 0011	2413.13	2444.6	0.3	0.3	11.1	2446.4	-1.8

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HS-216 THEMATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 191
 1981/11/30 11:13:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5-3.5-4 A/D THRESHOLD TEST (BAND= 1, SENSOR=11)

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 521

THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
158 0110 0010	2428.75	2460.0 -0.2 0.0	15.4	2462.2 -2.2
159 0110 0001	2444.38	2480.6 -0.5 -0.4	20.6	2478.0 2.6
160 0110 0000	2460.00	2494.4 0.5 0.4	3.7	2493.8 -9.4
161 0101 1111	2475.63	2502.6 0.4 0.4	18.2	2509.6 -7.0
162 0101 1110	2491.25	2513.4 -0.1 0.1	10.7	2525.4 -12.1
163 0101 1101	2506.88	2540.2 -0.7 -0.7	26.8	2541.3 -1.1
164 0101 1100	2522.50	2553.9 -1.1 -1.1	13.7	2557.1 -3.2
165 0101 1011	2538.13	2570.0 0.0 0.0	16.1	2572.9 -2.8
166 0101 1010	2553.75	2579.5 0.3 0.4	9.5	2588.7 -9.2
167 0101 1001	2569.38	2606.6 -0.7 0.0	27.1	2604.5 2.1
168 0101 1000	2585.00	2611.7 -0.9 -0.9	5.1	2620.3 -8.5
169 0101 0111	2600.63	2629.4 0.0 0.4	17.6	2636.1 -6.7
170 0101 0110	2616.25	2642.8 0.1 0.1	13.4	2651.9 -9.1
171 0101 0101	2631.88	2665.8 0.8 0.8	23.0	2667.7 -1.9
172 0101 0100	2647.50	2683.1 -1.1 0.0	17.2	2683.5 -0.5
173 0101 0011	2663.13	2696.9 -0.3 -0.3	13.9	2699.3 -2.4
174 0101 0010	2678.75	2709.9 0.2 0.1	13.0	2715.1 -5.2
175 0101 0001	2694.38	2732.2 0.6 0.7	22.3	2730.9 1.3
176 0101 0000	2710.00	2744.5 -0.0 0.1	12.3	2746.7 -2.2
177 0100 1111	2725.63	2755.4 -0.3 -0.3	10.9	2762.6 -7.1
178 0100 1110	2741.25	2766.3 -0.1 -0.0	10.9	2778.4 -12.0
179 0100 1101	2756.88	2791.0 0.6 -0.0	25.5	2794.2 -2.3
180 0100 1100	2772.50	2809.0 0.9 0.9	17.2	2810.0 -0.9
181 0100 1011	2788.13	2822.3 0.6 0.6	13.3	2825.8 -3.5
182 0100 1010	2803.75	2843.5 -0.4 -0.3	11.2	2841.6 -8.0
183 0100 1001	2819.38	2858.9 0.0 -0.7	25.3	2857.4 1.5

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HS-216 DUBHATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 192

1981/11/30 11:13:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

REL. T. H. 51-44 AND THRESHOLD TEST (HAND= 1 - SENSOR=11)



THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PRFU THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
184 0100 1000	2825.00	2847.5	0.2	0.0	8.6	2873.2	-5.7
185 0100 0111	2850.63	2882.1	0.0	0.1	14.6	2889.0	-6.9
186 0100 0110	2866.25	2895.6	-0.0	0.0	13.5	2904.8	-9.2
187 0100 0101	2881.88	2918.9	-0.9	-0.8	23.3	2920.6	-1.7
188 0100 0100	2897.50	2938.0	1.0	-0.0	19.1	2936.4	1.5
189 0100 0011	2913.13	2949.2	0.1	0.1	11.2	2952.2	-3.1
190 0100 0010	2928.75	2963.8	-0.0	0.3	14.6	2968.0	-4.2
191 0100 0001	2944.38	2985.4	-1.1	-1.1	21.6	2983.9	1.5
192 0100 0000	2960.00	2999.4	-0.7	-0.6	14.0	2999.7	-0.3
193 0011 1111	2975.63	3010.5	0.2	0.0	11.1	3015.5	-5.0
194 0011 1110	2991.25	3020.6	0.1	0.1	10.1	3031.3	-10.7
195 0011 1101	3006.88	3048.3	-0.8	-0.0	27.7	3047.1	1.2
196 0011 1100	3022.50	3060.1	-0.7	-0.8	11.8	3062.9	-2.8
197 0011 1011	3038.13	3078.1	-0.1	0.0	10.1	3078.7	-0.5
198 0011 1010	3053.75	3087.1	0.3	0.2	8.9	3094.5	-7.4
199 0011 1001	3069.38	3114.3	0.7	0.7	27.2	3110.3	4.0
200 0011 1000	3085.00	3116.2	-0.9	-0.1	1.9	3126.1	-9.9
201 0011 0111	3100.63	3138.3	-0.1	-0.1	22.1	3141.9	-3.6
202 0011 0110	3116.25	3150.2	0.1	-0.0	12.4	3157.7	-7.0
203 0011 0101	3131.88	3174.7	0.6	0.8	24.0	3173.5	1.2
204 0011 0100	3147.50	3189.2	-0.0	0.9	15.0	3189.3	0.4
205 0011 0011	3163.13	3205.9	-0.2	-0.1	16.2	3205.1	0.8
206 0011 0010	3178.75	3218.3	0.0	-0.1	12.3	3221.0	-2.7
207 0011 0001	3194.38	3241.5	0.6	-0.0	23.2	3236.8	4.7
208 0011 0000	3210.00	3252.2	0.7	0.7	11.2	3252.6	0.2
209 0010 1111	3225.63	3264.8	-0.4	0.0	12.0	3268.4	-3.6

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OF POOR QUALITY

HS-236 THERMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 193
 1981/11/30 11:13:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-17-8-5-B A/D THRESHOLD TEST (RAND= 1, SENSOR=11)



NOV 30 1981

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT, DEVIATION
210	0010 1110	3241.25	3274.7 0.0 0.0	9.9	3284.2 -9.5
211	0010 1101	3256.88	3302.4 -0.1 -0.8	27.7	3300.0 2.4
212	0010 1100	3272.50	3317.3 0.9 1.1	14.9	3315.8 1.5
213	0010 1011	3288.13	3332.3 -0.0 0.1	15.0	3331.6 0.7
214	0010 1010	3303.75	3342.9 -0.4 0.0	10.6	3347.4 -4.5
215	0010 1001	3319.38	3369.3 -0.7 -0.7	26.4	3363.2 6.1
216	0010 1000	3335.00	3374.1 0.3 -0.1	4.8	3379.0 -4.9
217	0010 0111	3350.63	3394.4 -1.7 -1.8	20.3	3394.8 -0.4
218	0010 0110	3366.25	3405.8 -0.1 0.1	11.3	3410.6 -4.9
219	0010 0101	3381.88	3429.9 -0.8 -0.8	24.2	3426.4 3.5
220	0010 0100	3397.50	3448.7 -1.0 -0.9	18.8	3442.3 6.5
221	0010 0011	3413.13	3460.3 -0.1 0.0	11.5	3458.1 2.2
222	0010 0010	3428.75	3474.3 0.4 0.5	14.0	3473.9 9.4
223	0010 0001	3444.38	3496.8 -0.6 0.0	22.5	3489.7 7.1
224	0010 0000	3460.00	3504.6 -0.3 -0.2	7.8	3505.5 -0.9
225	0001 1111	3475.63	3519.3 -0.1 -0.5	14.8	3521.3 -2.0
226	0001 1110	3491.25	3528.4 0.1 0.1	9.1	3537.1 -8.7
227	0001 1101	3506.88	3556.1 0.7 0.7	27.7	3552.9 3.2
228	0001 1100	3522.50	3569.6 -1.0 -1.0	13.5	3568.7 0.9
229	0001 1011	3538.13	3587.1 -0.2 -0.2	17.4	3584.5 2.6
230	0001 1010	3553.75	3595.5 0.5 0.0	8.4	3600.3 -4.8
231	0001 1001	3569.38	3623.5 0.7 0.8	28.0	3616.1 7.4
232	0001 1000	3585.00	3627.6 0.0 1.0	4.1	3631.9 -4.3
233	0001 0111	3600.63	3647.7 -0.3 -0.2	20.1	3647.7 -0.1
234	0001 0110	3616.25	3659.8 -0.2 -0.2	12.1	3663.6 -3.7
235	0001 0101	3631.88	3684.3 0.7 0.9	24.5	3679.4 4.9
236	0001 0100	3647.50	3699.9 0.7 0.8	15.7	3695.2 4.7

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OF POOR QUALITY

HS-236 THEMATIC NUMBER MAX UNIT TEST MODEL.. FLT. S/N 3 PAGE 194
 1981/01/30 11:13:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.1.1.3.5-3 AND THRESHOLD TEST (RAND= 1, SENSOR=11)

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3715.9	-0.1	0.0	16.0	3711.0	4.9
238	0001 0010	3678.75	3728.5	-0.5	-0.4	12.6	3726.8	1.7
239	0001 0001	3694.38	3752.6	-0.2	-0.8	24.2	3742.6	10.1
240	0001 0000	3710.00	3766.6	0.2	0.2	13.9	3758.4	8.2
241	0000 1111	3725.63	3774.8	0.7	0.7	8.2	3774.2	0.6
242	0000 1110	3741.25	3785.2	-0.1	-0.1	10.4	3790.0	-4.8
243	0000 1101	3756.88	3813.1	-0.9	-0.8	27.9	3805.8	7.3
244	0000 1100	3772.50	3828.8	1.0	0.1	15.7	3821.6	7.2
245	0000 1011	3788.13	3843.2	0.0	0.1	14.4	3837.4	5.8
246	0000 1010	3803.75	3853.4	-0.1	0.3	10.1	3853.2	0.1
247	0000 1001	3819.38	3880.8	-1.1	-1.1	27.4	3869.0	11.7
248	0000 1000	3835.00	3889.8	-0.3	-0.2	9.0	3884.8	4.9
249	0000 0111	3850.63	3903.8	-0.0	0.0	14.0	3900.7	3.1
250	0000 0110	3866.25	3917.0	0.1	0.2	13.2	3916.5	0.5
251	0000 0101	3881.88	3941.9	-1.0	0.0	24.9	3932.3	9.6
252	0000 0100	3897.50	3940.3	-0.4	-0.3	18.4	3948.1	12.2
253	0000 0011	3913.13	3972.5	0.0	0.2	22.2	3963.9	8.6
254	0000 0010	3928.75	3986.2	0.5	0.5	13.7	3979.7	6.6
255	0000 0001	3944.38	4008.7	0.4	0.2	22.5	3995.5	13.2

ORIGINAL PAGE 19
 OF POOR QUALITY

HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 195

1981/11/30 11:20:14 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 1, SENSOR=12)

S U M M A R Y



REV 30 78

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 := THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

DEFSAT FLT STRAIGHT LINE IS: $Y = 15.806X - 37.0MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.158%

OFFSET IS: -37.0MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998290$

ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.745MV REQMT: RMS ERROR <= 7.817MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
20.11V	243	15.880MV	3.5MV	200	5.444MV

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.01V	199	-0.069MV	-3.3MV	215	.803MV

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.01V	199	-0.054MV	-3.2MV	215	.811MV

TEST PASSED

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OF POOR QUALITY

HS-256 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 196

1981/11/10 11:20:28 PENALTY UNIT PERFORMANCE @ AMBIENT TEMP.

3.12-14.12-11 AND THRESHOLD TEST (RANGE= 1 - SENSOR=12)

HAC
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S27

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THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1 : 1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
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THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-27.2	-0.9	-0.6		-21.2	-5.9
2	1111 1110	-13.250	-14.7	0.4	-0.0	12.4	-5.4	9.1
3	1111 1101	6.875	7.7	0.8	0.8	22.4	10.4	-2.7
4	1111 1100	22.500	21.6	-0.0	0.3	13.9	26.2	-4.6
5	1111 1011	38.125	40.1	-0.8	-0.8	18.5	42.0	-1.9
6	1111 1010	54.250	52.3	-0.5	-0.4	12.2	52.8	-0.5
7	1111 1001	69.375	74.9	0.6	-0.0	22.6	73.6	1.3
8	1111 1000	85.000	81.0	0.3	0.3	6.1	89.4	-8.4
9	1111 0111	100.625	100.9	-0.7	-0.0	19.9	100.2	-4.3
10	1111 0110	116.250	116.1	-0.4	-0.5	15.1	121.0	-4.9
11	1111 0101	131.875	136.5	-0.1	-0.8	20.4	136.8	-0.3
12	1111 0100	147.500	153.9	0.3	0.3	17.4	152.6	1.2
13	1111 0011	163.125	167.0	0.9	0.9	13.2	168.4	-1.4
14	1111 0010	178.750	183.4	-0.4	-0.0	16.4	184.3	-0.8
15	1111 0001	194.375	203.7	1.0	-0.9	20.3	200.1	3.6
16	1111 0000	210.000	213.5	0.3	0.0	9.8	215.9	-2.1
17	1110 1111	225.625	227.5	0.6	0.6	14.0	231.7	-4.1
18	1110 1110	241.250	241.1	-0.1	0.5	13.6	247.5	-6.1
19	1110 1101	256.875	263.8	-0.8	-0.8	22.7	263.3	0.6
20	1110 1100	272.500	280.4	-0.4	-0.3	16.6	279.1	1.3
21	1110 1011	288.125	294.6	0.7	-0.0	14.2	294.9	-0.3
22	1110 1010	303.750	307.9	0.3	0.3	13.3	310.7	-2.8
23	1110 1001	319.375	330.9	-0.8	0.0	22.9	326.5	4.4
24	1110 1000	335.000	340.6	-0.3	-0.4	9.7	342.3	-1.7
25	1110 0111	350.625	356.1	-0.1	-0.7	15.6	358.1	-2.0

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 197

1981/11/30 11:20:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

11-11-11-11 AND THRESHOLD TEST (BAND= 1, SENSOR=12)

HAC
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5:27

NOV 30 '81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		LEVELS RATIO= 1:1				POINT	DEVIATION
		NOMINAL	LOWER	UPPER			
26	1110 0110	366.250	371.0	0.2	0.4	373.9	-2.9
27	1110 0101	381.875	390.9	0.6	0.7	389.7	1.1
28	1110 0100	397.500	411.5	-0.4	-0.1	405.5	6.0
29	1110 0011	413.125	423.0	-1.0	-0.9	421.3	1.6
30	1110 0010	428.750	439.0	0.4	-0.0	437.1	1.8
31	1110 0001	444.375	457.8	0.8	0.8	453.0	4.9
32	1110 0000	460.000	463.3	-0.0	0.3	468.8	-5.5
33	1101 1111	475.625	482.7	-0.7	-0.7	484.6	-1.9
34	1101 1110	491.250	494.9	-0.5	-0.5	500.4	-5.4
35	1101 1101	506.875	517.7	0.6	-0.0	516.7	1.5
36	1101 1100	522.500	531.6	0.3	0.4	532.0	-0.4
37	1101 1011	538.125	549.8	-0.7	0.0	547.8	2.0
38	1101 1010	553.750	560.9	-0.4	-0.4	563.6	-2.7
39	1101 1001	569.375	585.0	-0.0	-0.7	579.4	5.6
40	1101 1000	585.000	593.1	0.3	0.3	595.2	-2.1
41	1101 0111	600.625	609.7	0.6	0.6	611.0	-1.4
42	1101 0110	616.250	625.3	-0.4	-0.5	626.8	-1.5
43	1101 0101	631.875	645.7	-0.7	-0.6	642.4	3.1
44	1101 0100	647.500	663.3	0.3	0.0	658.4	4.9
45	1101 0011	663.125	676.3	0.7	0.7	674.2	2.1
46	1101 0010	678.750	691.3	-0.1	0.3	690.0	1.3
47	1101 0001	694.375	712.5	-0.8	-0.8	705.8	6.7
48	1101 0000	710.000	726.3	-0.4	-0.5	721.7	4.7
49	1100 1111	725.625	736.1	0.6	0.6	737.5	-1.3
50	1100 1110	741.250	749.1	0.4	0.4	753.3	-4.1
51	1100 1101	756.875	772.2	-0.6	-0.1	769.1	3.2

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119-236 THMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 198
 1981/11/30 11:20:28 FINALTY FULL PERFORMANCE @ AMBIENT TEMP.
 119-236-119-236 A/D THRESHOLD TEST (RAND= 1, SENSOR=12)



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	788.9	-0.5	-0.4	16.7	784.9	4.0
53	1100 1011	788.125	803.5	-0.0	-0.7	14.5	800.7	2.8
54	1100 1010	803.750	815.2	0.3	0.4	11.8	816.5	-1.7
55	1100 1001	819.375	837.8	0.7	0.7	22.6	832.3	5.5
56	1100 1000	835.000	850.7	-0.3	-0.4	12.9	848.1	2.6
57	1100 0111	850.625	863.7	-0.8	-0.7	12.9	863.9	-0.2
58	1100 0110	866.250	878.6	0.4	-0.1	14.9	879.7	-1.7
59	1100 0101	881.875	898.2	0.5	0.5	19.7	895.5	2.7
60	1100 0100	897.500	918.4	-0.0	0.4	20.2	911.3	7.1
61	1100 0011	913.125	930.0	-0.8	-0.8	11.6	927.1	2.9
62	1100 0010	928.750	945.6	-0.5	-0.5	15.6	942.9	2.7
63	1100 0001	944.375	964.6	0.7	0.7	19.0	958.7	5.8
64	1100 0000	960.000	977.5	0.3	0.3	12.9	974.5	2.9
65	1011 1111	975.625	992.7	-0.7	0.0	15.2	990.4	2.3
66	1011 1110	991.250	1004.0	-0.4	-0.4	11.3	1006.2	-2.7
67	1011 1101	1006.88	1027.7	0.0	-0.5	23.7	1022.0	5.7
68	1011 1100	1022.50	1040.0	0.3	0.3	12.3	1037.8	2.2
69	1011 1011	1038.13	1058.9	0.6	0.6	18.9	1053.6	5.4
70	1011 1010	1053.75	1069.5	-0.4	-0.5	10.5	1069.4	0.1
71	1011 1001	1069.38	1093.9	-0.6	-0.6	24.4	1085.2	8.7
72	1011 1000	1085.00	1098.5	0.4	-0.0	4.6	1101.0	-2.5
73	1011 0111	1100.63	1118.9	0.6	0.6	20.4	1116.8	2.1
74	1011 0110	1116.25	1133.0	-0.0	0.5	14.1	1132.6	0.4
75	1011 0101	1131.88	1154.2	-0.6	-0.9	21.2	1148.4	5.7
76	1011 0100	1147.50	1171.2	-0.4	-0.5	17.1	1164.2	7.0
77	1011 0011	1163.13	1185.4	0.7	0.7	14.2	1180.0	5.4
78	1011 0010	1178.75	1198.9	0.4	0.3	13.5	1195.8	3.1

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HS 236 THERMALIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 199
 1981/11/30 11:20:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 9.1.0.17-18 AND THRESHOLD TEST (BAND= 1, SENSOR=12)

HAC
TEST
S27

REV 30 '87

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	HIGHER		POINT	DEVIATION
79	1011 0001	1194.38	1220.8	-0.8	0.0	1211.6	9.2
80	1011 0000	1210.00	1233.0	-0.3	-0.3	1227.4	5.5
81	1010 1111	1225.63	1245.0	-0.0	-0.7	1243.2	1.7
82	1010 1110	1241.25	1256.5	0.4	0.4	1259.1	-2.6
83	1010 1101	1256.88	1279.3	0.5	0.6	1274.9	4.5
84	1010 1100	1272.50	1295.7	-0.4	-0.3	1290.7	5.0
85	1010 1011	1288.13	1311.6	-0.6	-0.6	1306.5	5.1
86	1010 1010	1303.75	1322.0	0.5	-0.0	1322.3	-0.3
87	1010 1001	1319.38	1345.4	0.6	0.5	1338.1	7.0
88	1010 1000	1335.00	1354.3	0.0	0.5	1353.9	0.4
89	1010 0111	1350.63	1371.4	-0.5	-0.5	1369.7	1.7
90	1010 0110	1366.25	1386.0	-0.6	-0.5	1385.5	0.5
91	1010 0101	1381.88	1405.4	0.7	0.6	1401.3	4.1
92	1010 0100	1397.50	1426.1	0.4	0.4	1417.1	9.0
93	1010 0011	1413.13	1438.0	-0.8	0.0	1432.9	5.1
94	1010 0010	1428.75	1452.1	-0.6	-0.6	1448.7	3.3
95	1010 0001	1444.38	1472.6	0.0	-0.8	1464.5	8.1
96	1010 0000	1460.00	1481.1	0.3	0.2	1480.3	0.8
97	1001 1111	1475.63	1495.6	0.5	0.6	1496.1	-0.5
98	1001 1110	1491.25	1507.1	-0.5	-0.5	1512.0	-4.8
99	1001 1101	1506.88	1533.2	-2.2	-2.3	1527.8	5.4
100	1001 1100	1522.50	1543.6	0.4	-0.0	1543.6	0.0
101	1001 1011	1538.13	1562.4	0.6	0.6	1559.4	3.1
102	1001 1010	1553.75	1571.8	0.1	0.5	1575.2	-3.4
103	1001 1001	1569.38	1597.5	-0.8	-0.7	1591.0	6.5
104	1001 1000	1585.00	1604.9	-0.3	-0.2	1606.8	-1.9

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HS 236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 200
 1981/11/30 11:20:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 01:13:14 AND THRESHOLD TEST (RAND= 1, SENSOR=12)

HAC
TEST
527

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEAKS RATIO- 1:1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
101 1001 0111	1600.63	1627.2	0.6	0.7	17.3	1622.6	-0.4
106 1001 0110	1616.25	1635.8	0.5	0.5	19.6	1638.4	-2.6
107 1001 0101	1631.88	1657.4	-0.5	-0.0	21.6	1654.2	3.2
108 1001 0100	1647.50	1674.7	-0.3	-0.3	17.2	1676.0	4.7
109 1001 0011	1663.13	1689.5	0.0	-0.7	14.8	1685.8	3.7
110 1001 0010	1678.75	1701.7	0.1	0.2	12.2	1701.6	0.1
111 1001 0001	1694.38	1723.2	0.8	0.7	21.5	1717.4	5.7
112 1001 0000	1710.00	1740.0	-0.4	-0.4	16.8	1733.2	6.8
113 1000 1111	1725.63	1748.1	-0.6	-0.6	8.1	1749.0	-0.9
114 1000 1110	1741.25	1759.1	0.5	-0.0	11.0	1764.8	-5.7
115 1000 1101	1756.88	1782.6	2.3	2.3	23.5	1780.7	7.0
116 1000 1100	1772.50	1798.4	-0.0	0.2	15.7	1796.5	1.9
117 1000 1011	1788.13	1814.6	-0.4	-0.4	16.2	1812.3	7.3
118 1000 1010	1803.75	1825.2	-0.5	-0.5	10.6	1828.1	-2.9
119 1000 1001	1819.38	1848.6	0.6	0.4	23.4	1843.9	4.7
120 1000 1000	1835.00	1860.5	0.3	0.3	11.9	1859.2	0.8
121 1000 0111	1850.63	1874.6	-0.7	-0.0	14.1	1875.5	-0.9
122 1000 0110	1866.25	1888.6	-0.6	-0.6	14.0	1891.3	-2.7
123 1000 0101	1881.88	1909.3	-0.0	-0.6	20.7	1907.1	7.2
124 1000 0100	1897.50	1929.4	0.5	0.4	20.1	1922.9	6.5
125 1000 0011	1913.13	1940.3	0.8	0.8	10.8	1938.7	1.6
126 1000 0010	1928.75	1954.9	-0.5	-0.5	14.6	1954.5	0.3
127 1000 0001	1944.38	1975.5	-0.8	-0.7	20.3	1970.3	5.1
128 1000 0000	1950.00	1984.8	0.4	-0.1	9.3	1986.1	-1.3
129 0111 1111	1975.63	1997.2	0.6	0.6	12.4	2001.9	-4.7
130 0111 1110	1991.25	2008.8	-0.1	0.5	11.6	2017.7	-8.9

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H5-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 201
 1981/11/30 11:29:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 0.11.0.5-B A/D THRESHOLD TEST (RAND= 1 - SENSOR=12)

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THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (KV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
131 0111 1101	2006.88	2034.5	-2.8	-2.8	25.6	2033.5	0.9
132 0111 1100	2022.50	2047.4	-0.5	-0.5	12.9	2049.4	-2.0
133 0111 1011	2038.13	2064.1	0.7	0.7	16.7	2065.2	-1.1
134 0111 1010	2053.75	2074.5	0.4	0.4	10.4	2081.0	-6.5
135 0111 1001	2069.38	2098.8	-0.7	1.0	24.3	2096.8	2.1
136 0111 1000	2085.00	2103.0	-0.4	-0.4	4.2	2112.6	-9.6
137 0111 0111	2100.63	2124.8	0.0	-0.8	21.8	2128.4	-3.6
138 0111 0110	2116.25	2138.2	0.4	0.5	13.3	2144.2	-6.0
139 0111 0101	2131.88	2158.0	2.7	2.8	19.8	2160.0	-2.0
140 0111 0100	2147.50	2177.3	-0.5	-0.5	19.3	2175.8	1.5
141 0111 0011	2163.13	2191.1	-0.8	-0.8	13.8	2191.6	-0.5
142 0111 0010	2178.75	2204.4	0.5	-0.1	13.3	2207.4	-3.0
143 0111 0001	2194.38	2225.1	1.0	0.9	20.6	2223.2	1.9
144 0111 0000	2210.00	2235.0	-0.1	0.3	9.9	2239.0	-4.0
145 0110 1111	2225.63	2250.1	-0.6	-0.7	15.0	2254.8	-4.7
146 0110 1110	2241.25	2262.2	-0.7	-0.6	12.1	2270.6	-8.5
147 0110 1101	2256.88	2286.0	0.6	0.6	23.9	2286.4	-0.4
148 0110 1100	2272.50	2301.4	0.4	0.5	15.3	2302.2	-0.9
149 0110 1011	2288.13	2317.0	-0.7	0.0	15.6	2318.1	-1.1
150 0110 1010	2303.75	2328.1	-0.4	-0.4	11.1	2333.9	-5.8
151 0110 1001	2319.38	2352.6	-0.1	-2.4	24.5	2349.7	2.9
152 0110 1000	2335.00	2358.8	0.4	0.3	6.2	2365.5	-6.7
153 0110 0111	2350.63	2376.2	0.8	0.7	17.4	2381.3	-5.1
154 0110 0110	2366.25	2391.3	-0.6	-0.7	15.2	2397.1	-5.7
155 0110 0101	2381.88	2412.9	-2.9	-2.9	21.5	2412.9	0.0
156 0110 0100	2397.50	2432.5	0.4	-0.0	19.6	2428.7	3.8
157 0110 0011	2413.13	2442.5	0.7	0.7	9.9	2444.5	-2.0

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HS-214 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 202
 1981/11/30 11:20:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 PENALTY FULL PERFORMANCE @ AMBIENT TEMP. TEST (HAND= 1, SENSOR=12)



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			LEVELS RATIO= 1:1				POINT	DEVIATION
			NOMINAL	LOWER	UPPER			
156	0110 0010	2428.75	2457.5	0.0	0.5	15.1	2460.3	-2.8
157	0110 0001	2444.38	2478.0	-0.8	-0.9	20.4	2476.1	1.9
159	0110 0000	2440.00	2484.2	-0.2	-0.2	6.2	2491.9	-7.8
161	0101 1111	2475.63	2501.0	0.6	0.7	16.8	2507.7	-6.8
162	0101 1110	2491.25	2511.9	0.5	0.5	10.9	2523.5	-11.4
163	0101 1101	2506.88	2538.4	-0.5	-0.0	26.5	2539.3	-0.9
164	0101 1100	2522.50	2551.9	-0.5	-0.5	13.1	2555.1	-3.2
165	0101 1011	2538.13	2568.8	-0.0	-0.8	16.9	2570.9	-2.1
166	0101 1010	2553.75	2577.5	0.4	0.5	8.7	2586.8	-9.2
167	0101 1001	2569.38	2601.8	2.8	2.8	24.2	2602.6	-0.8
168	0101 1000	2585.00	2609.4	-0.3	-0.4	7.6	2618.4	-9.0
169	0101 0111	2600.63	2628.6	-0.7	-0.6	19.2	2634.2	-5.6
170	0101 0110	2616.25	2641.2	0.5	-0.0	12.7	2650.0	-8.7
171	0101 0101	2631.88	2664.1	0.6	0.6	22.8	2665.8	-1.7
172	0101 0100	2647.50	2681.0	-0.1	0.4	16.9	2681.6	-0.6
173	0101 0011	2663.13	2695.3	-1.4	-1.4	14.2	2697.4	-2.1
174	0101 0010	2678.75	2708.0	-0.6	-0.5	12.8	2713.2	-5.2
175	0101 0001	2694.38	2728.7	6.9	1.7	20.7	2729.0	-0.3
176	0101 0000	2710.00	2742.3	1.0	1.0	13.6	2744.8	-2.5
177	0100 1111	2725.63	2753.9	-0.7	-0.0	11.5	2760.6	-6.8
178	0100 1110	2741.25	2765.3	-0.6	-0.6	11.4	2776.4	-11.2
179	0100 1101	2756.88	2790.5	-0.1	-0.6	25.2	2792.2	-1.7
180	0100 1100	2772.50	2805.5	0.4	0.4	15.0	2808.0	-2.5
181	0100 1011	2788.13	2820.2	0.8	0.7	14.7	2823.8	-3.6
182	0100 1010	2803.75	2831.0	-0.2	-0.3	10.8	2839.7	-8.6
183	0100 1001	2819.38	2856.9	-2.9	-2.9	23.8	2855.5	1.4

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HS 216 THERMATIC MATED BOX UNIT TEST MODEL.. FLT. S/N 3 PAGE 204
1981/11/30 11:20:28 FINALITY FULL PERFORMANCE @ AMBIENT TEMP.
S111 P1111 AND THRESHOLD TEST CHAND= 1, SENSOR=12

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VOLTAGE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3274.0	-0.6	-0.7	11.6	3282.2	-8.2
211	0010 1101	3256.88	3300.4	-0.6	-0.8	26.4	3298.0	2.4
212	0010 1100	3272.50	3313.9	0.5	-0.1	13.5	3313.8	0.1
213	0010 1011	3288.13	3330.3	0.6	0.8	16.4	3329.6	0.6
214	0010 1010	3303.75	3340.2	-0.1	0.6	9.9	3345.4	-5.3
215	0010 1001	3319.38	3367.2	-3.3	-3.2	27.1	3361.2	6.0
216	0010 1000	3335.00	3372.3	0.1	-0.9	5.1	3377.1	-4.7
217	0010 0111	3350.63	3390.5	0.7	0.8	18.2	3392.9	-2.3
218	0010 0110	3366.25	3403.7	0.9	0.9	13.1	3408.7	-5.0
219	0010 0101	3381.88	3427.8	-0.7	-0.1	24.1	3424.5	3.3
220	0010 0100	3397.50	3447.1	-0.8	-0.8	19.3	3430.3	6.8
221	0010 0011	3412.13	3459.0	-0.0	-1.3	11.9	3456.1	2.9
222	0010 0010	3428.75	3471.6	0.5	0.6	12.6	3471.9	-0.3
223	0010 0001	3444.38	3492.4	-0.2	2.2	20.8	3487.7	4.7
224	0010 0000	3460.00	3503.3	-0.6	-0.6	10.8	3503.5	-0.2
225	0001 1111	3475.63	3517.4	-0.8	-0.8	14.1	3519.3	-1.9
226	0001 1110	3491.25	3526.5	0.6	-0.0	9.1	3525.1	-0.6
227	0001 1101	3506.88	3534.1	0.4	0.8	22.6	3550.9	3.2
228	0001 1100	3522.50	3566.8	-0.1	0.4	12.6	3566.7	0.1
229	0001 1011	3538.13	3585.4	-0.6	-0.6	18.6	3587.5	2.9
230	0001 1010	3553.75	3597.4	0.0	-0.3	8.0	3598.3	-4.9
231	0001 1001	3569.38	3621.2	0.3	0.6	27.8	3614.1	7.1
232	0001 1000	3585.00	3625.4	0.4	0.5	4.2	3629.9	-4.5
233	0001 0111	3600.63	3648.0	-2.7	0.0	22.5	3645.8	2.2
234	0001 0110	3616.25	3658.5	-0.8	-0.6	10.5	3661.6	-3.1
235	0001 0101	3631.88	3683.0	-0.1	-0.9	24.5	3677.4	5.6
236	0001 0100	3647.50	3698.2	0.6	0.7	15.1	3693.2	5.0

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 205
 1981/11/00 11:20:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 4.15.3.5-B A/D THRESHOLD TEST (BAND= 1, SENSOR=12)



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THRESHOLD DEVELOPER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3713.5	-0.1	0.9	15.3	3709.0	4.5
238	0001 0010	3670.75	3725.9	-0.5	-0.7	12.5	3724.8	1.1
239	0001 0001	3694.38	3750.2	-2.5	-2.3	24.3	3740.6	9.7
240	0001 0000	3710.00	3764.5	0.4	-0.1	14.3	3756.4	8.2
241	0000 1111	3725.63	3772.7	0.8	0.8	8.1	3772.7	0.5
242	0000 1110	3741.25	3782.9	0.0	1.1	10.2	3788.0	-5.1
243	0000 1101	3756.88	3811.0	-0.9	-0.7	28.1	3803.8	7.2
244	0000 1100	3772.50	3825.5	-0.1	-0.4	14.5	3819.6	5.9
245	0000 1011	3788.13	3841.0	0.6	0.9	15.5	3835.4	5.6
246	0000 1010	3803.75	3850.6	0.6	0.7	9.6	3851.7	-0.6
247	0000 1001	3819.38	3878.6	-0.8	-0.0	27.9	3867.0	11.5
248	0000 1000	3835.00	3886.9	-0.6	-0.5	8.3	3882.8	4.1
249	0000 0111	3850.63	3903.7	0.9	-1.9	16.8	3898.6	5.1
250	0000 0110	3866.25	3915.0	0.6	0.7	11.2	3914.5	0.5
251	0000 0101	3881.88	3939.0	-0.2	0.6	24.0	3930.3	8.7
252	0000 0100	3897.50	3959.1	-0.7	-0.7	20.1	3946.1	13.1
253	0000 0011	3913.13	3971.3	-1.1	-0.9	12.2	3961.9	9.4
254	0000 0010	3928.75	3983.5	0.6	-0.1	12.2	3977.7	5.9
255	0000 0001	3944.38	4006.2	0.6	0.8	22.7	3993.5	12.8

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HS-276 THEMATIC MAPPER MIX UNIT TEST MODFL.. FLT. S/N 3 PAGE 206
 1981/11/30 11:26:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5-3.5-4 A/D THRESHOLD TEST (RANGE= 1, SENSOR=13)
 S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 := THEN INC <= 31.2)
 THE FOLLOWING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.818X - 37.2MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.233%
 OFFSET IS: -37.2MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998160$
 ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 7.042MV REGRD: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
28.4MV	227	15.886MV	0.9MV	200	6.151MV

MAXIMUM MINIMUM AT OUTPUT I/F RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.8MV	96	-0.063MV	-3.6MV	218	.387MV

MAXIMUM MINIMUM AT OUTPUT I/F RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
3.4MV	138	0.005MV	-3.2MV	129	.442MV

TEST PASSED



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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FIT. S/N 3 PAGE 207

1981/11/00 11:27:00 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.13-4 AND THRESHOLD TEST (BAND= 1, SENSOR=13)

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THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
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THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-26.3	-0.4	-0.1		-21.4	-5.0
2	1111 1110	-8.750	-15.3	0.0	-1.6	11.0	-5.6	-9.8
3	1111 1101	6.875	8.9	0.0	0.1	24.2	10.3	-1.4
4	1111 1100	22.500	22.4	0.0	0.1	13.5	26.1	-3.7
5	1111 1011	38.125	40.7	-0.2	0.0	18.3	41.9	-1.2
6	1111 1010	53.750	52.4	0.3	0.3	11.7	57.7	-5.3
7	1111 1001	69.375	76.4	-0.1	-0.1	24.1	73.5	7.9
8	1111 1000	85.000	81.5	-0.3	-0.3	5.0	89.3	-7.9
9	1111 0111	100.625	101.5	-0.1	0.2	20.0	105.2	-3.7
10	1111 0110	116.250	113.1	0.1	0.2	11.6	121.0	-7.9
11	1111 0101	131.875	137.0	-0.1	-0.0	23.9	136.8	0.2
12	1111 0100	147.500	154.2	0.4	0.1	17.2	152.6	1.5
13	1111 0011	163.125	168.3	0.1	0.1	14.1	168.4	-0.2
14	1111 0010	178.750	183.3	-0.0	-0.2	15.1	184.2	-0.9
15	1111 0001	194.375	204.2	-0.1	-0.2	20.8	200.1	4.1
16	1111 0000	210.000	213.5	-0.0	0.3	9.3	215.9	-2.4
17	1110 1111	225.625	228.8	0.1	0.2	15.3	231.7	-2.9
18	1110 1110	241.250	238.8	-0.2	-0.3	10.0	247.5	-8.7
19	1110 1101	256.875	264.3	-0.3	-0.0	25.5	263.3	1.0
20	1110 1100	272.500	281.0	-0.3	-0.2	16.6	279.2	1.8
21	1110 1011	288.125	295.9	-0.0	-0.1	14.9	295.0	0.9
22	1110 1010	303.750	308.4	-0.2	-0.1	12.5	310.8	-2.4
23	1110 1001	319.375	331.5	-0.1	0.1	23.1	326.6	4.9
24	1110 1000	335.000	340.3	0.3	0.3	8.8	342.4	-2.1
25	1110 0111	350.625	356.8	-0.1	-0.1	16.5	358.2	-1.5

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HS-216 THERMATIC MAPPER MIX UNIT TEST MODEL .. FL1, S/N 3 PAGE 208

1981-11-30 11:27:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

7111415-12 AND THRESHOLD TEST (RAND= 1, SENSIR=13)

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THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
25	1110 0110	366.250	368.8	-0.3	0.0	12.0	374.1	-5.3
27	1110 0101	381.875	392.0	0.1	0.1	23.2	389.9	2.2
28	1110 0100	397.500	412.9	-0.1	-0.5	20.8	405.7	7.2
29	1110 0011	413.125	423.3	-0.1	-0.1	10.4	421.5	1.8
30	1110 0010	428.750	438.6	-0.0	0.4	15.3	437.3	1.2
31	1110 0001	444.375	459.0	0.1	0.2	20.4	453.1	5.8
32	1110 0000	460.000	463.6	0.4	0.4	4.6	469.0	-5.4
33	1101 1111	475.625	483.4	-0.2	0.0	19.9	484.8	-1.3
34	1101 1110	491.250	494.1	0.2	0.2	10.6	500.6	-6.5
35	1101 1101	506.875	518.8	-0.1	-0.2	24.7	516.4	2.4
36	1101 1100	522.500	532.0	0.3	0.3	13.2	532.2	-0.2
37	1101 1011	538.125	550.3	-0.1	0.1	18.3	548.1	2.2
38	1101 1010	553.750	561.3	0.2	0.4	11.0	563.9	-2.6
39	1101 1001	569.375	585.6	-0.1	-0.0	24.3	579.7	5.9
40	1101 1000	585.000	593.6	-0.3	-0.0	7.9	595.5	-1.9
41	1101 0111	600.625	610.9	0.1	0.2	17.3	611.3	-0.5
42	1101 0110	616.250	622.0	-0.0	-0.2	11.1	627.1	-5.2
43	1101 0101	631.875	646.1	-0.1	-0.1	24.2	643.0	3.2
44	1101 0100	647.500	664.1	-0.0	-0.3	18.0	658.8	5.3
45	1101 0011	663.125	677.3	-0.0	0.0	13.2	674.6	2.7
46	1101 0010	678.750	691.6	-0.4	-0.1	14.3	690.4	1.1
47	1101 0001	694.375	713.1	-0.2	0.0	21.5	706.2	6.9
48	1101 0000	710.000	725.9	0.4	0.5	12.8	722.0	3.8
49	1100 1111	725.625	737.5	-0.0	-0.2	11.6	737.9	-0.4
50	1100 1110	741.250	746.6	-0.2	-0.1	9.2	753.7	-7.0
51	1100 1101	756.875	772.5	-0.0	0.1	25.9	769.5	3.0

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 209

1981/11/30 11:27:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5+11.5-13 A/D THRESHOLD TEST (RAND= 1, SENSOR=13)



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THRESHOLD NUMBER	A/D THRESHOLD	A/D OUTPUT THRESHOLD	IOFAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
				NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100	1100	772.500	789.3	-0.2	-0.2	16.8	785.3	4.0
53	1100	1011	788.125	804.0	-0.1	-0.1	14.6	801.1	2.8
54	1100	1010	803.750	816.3	-0.4	-0.0	12.3	817.0	-0.7
55	1100	1001	819.375	838.8	-0.1	0.3	22.5	832.8	6.1
56	1100	1000	835.000	851.4	-0.0	-0.5	12.5	848.6	2.8
57	1100	0111	850.625	864.3	-0.2	-0.1	12.9	864.4	-0.1
58	1100	0110	866.250	875.4	-0.0	0.1	11.1	880.2	-4.8
59	1100	0101	881.875	899.2	0.0	0.0	23.7	896.0	3.1
60	1100	0100	897.500	920.0	-0.4	-0.4	20.8	911.9	8.1
61	1100	0011	913.125	930.3	-0.1	0.0	10.3	927.7	2.7
62	1100	0010	928.750	944.7	0.3	0.3	14.4	943.5	1.3
63	1100	0001	944.375	965.8	0.0	-0.1	21.0	959.3	6.5
64	1100	0000	960.000	978.3	0.3	0.3	12.5	975.1	3.2
65	1011	1111	975.625	993.3	-0.0	0.2	15.0	990.9	2.4
66	1011	1110	991.250	1003.1	0.5	0.5	9.8	1006.8	-3.7
67	1011	1101	1006.875	1029.8	-0.2	-0.1	24.7	1022.6	7.2
68	1011	1100	1022.500	1040.7	0.2	0.0	10.9	1038.4	2.3
69	1011	1011	1038.125	1060.0	0.2	0.3	19.3	1054.2	5.8
70	1011	1010	1053.750	1070.3	0.1	-0.4	10.3	1070.0	0.3
71	1011	1001	1069.375	1094.6	-0.2	-0.2	24.3	1085.9	8.8
72	1011	1000	1085.000	1098.8	0.0	0.3	4.1	1101.7	-2.9
73	1011	0111	1100.625	1120.1	0.3	0.2	21.3	1117.5	2.6
74	1011	0110	1116.250	1130.1	-0.2	-0.2	10.0	1133.3	-3.2
75	1011	0101	1131.875	1154.6	-0.2	-0.1	24.5	1149.1	5.5
76	1011	0100	1147.500	1171.4	-0.3	-0.2	16.8	1164.9	6.5
77	1011	0011	1163.125	1186.7	0.0	-0.1	15.3	1180.8	6.0
78	1011	0010	1178.750	1200.3	-0.2	-0.2	13.6	1196.6	3.8

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HS-234 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 210
 1981-11/30 11:27:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5, 3.11-13 A/D THRESHOLD TEST (RAND= 1, SENSOR=13)



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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO- LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1221.4	0.0	0.0	21.1	1212.4	9.1
80	1011 0000	1210.00	1233.0	0.4	0.5	11.5	1228.2	4.8
81	1010 1111	1225.63	1245.9	-0.2	-0.2	12.9	1244.0	1.8
82	1010 1110	1241.25	1256.6	-0.5	0.0	10.7	1259.8	-3.2
83	1010 1101	1256.88	1282.1	0.1	0.1	25.5	1275.7	6.5
84	1010 1100	1272.50	1296.4	-0.3	0.0	14.2	1291.5	4.9
85	1010 1011	1288.13	1312.5	-0.3	-0.2	14.2	1307.3	5.2
86	1010 1010	1303.75	1323.4	-0.0	0.3	10.9	1323.1	0.3
87	1010 1001	1319.38	1346.6	0.1	0.1	23.2	1338.9	7.7
88	1010 1000	1335.00	1365.4	-0.4	-0.3	8.7	1354.8	0.6
89	1010 0111	1350.63	1372.5	-0.3	-0.0	17.1	1370.6	1.9
90	1010 0110	1366.25	1382.3	0.2	0.2	9.8	1386.4	-4.1
91	1010 0101	1381.88	1406.6	0.2	-0.0	24.3	1402.2	4.4
92	1010 0100	1397.50	1426.9	0.3	0.4	20.3	1418.0	8.9
93	1010 0011	1413.13	1438.2	0.0	0.1	11.8	1433.8	4.8
94	1010 0010	1428.75	1453.2	0.1	0.3	14.6	1449.7	3.6
95	1010 0001	1444.38	1473.5	-0.1	-0.1	20.3	1465.5	8.1
96	1010 0000	1460.00	1481.6	0.8	0.1	8.0	1481.3	0.3
97	1001 1111	1475.63	1497.1	0.3	0.3	15.5	1497.1	-0.0
98	1001 1110	1491.25	1506.7	0.5	0.0	9.6	1512.9	-6.3
99	1001 1101	1506.88	1533.8	-0.2	-0.3	27.2	1528.7	5.1
100	1001 1100	1522.50	1544.9	0.0	-0.5	11.1	1544.6	0.3
101	1001 1011	1538.13	1563.9	0.2	0.2	19.0	1560.4	3.5
102	1001 1010	1553.75	1573.7	-0.4	-0.3	9.8	1576.2	-2.5
103	1001 1001	1569.38	1598.3	-0.1	0.0	24.6	1592.0	6.3
104	1001 1000	1585.00	1605.6	0.1	0.1	7.2	1607.8	-2.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 211

1981/11/30 11:27:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

11.11.3.1.1 AND THRESHOLD TEST (RANGE= 1, SENSOR=13)

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THRESHOLD	A/D	OUTPUT	IDEAL	ANALOG INPUT VOLTAGE (MV)			INCREASE	BEST FIT STRAIGHT LINE	
NUMBER	THRESHOLD		VALUE	LEVELS RATIO= 1:1			FROM PREV	POINT	DEVIATION
			(MV)	NOMINAL	LOWER	UPPER	THRESHOLD		
105	1001	0111	1600.63	1623.9	0.2	0.0	18.3	1623.7	0.2
106	1001	0110	1616.25	1633.2	-0.0	0.1	9.3	1639.5	-6.3
107	1001	0101	1631.88	1659.4	0.5	-0.9	26.7	1655.3	4.1
108	1001	0100	1647.50	1675.5	-0.3	-0.4	16.2	1671.1	4.4
109	1001	0011	1663.13	1690.5	-0.2	-0.2	15.0	1686.9	3.6
110	1001	0010	1678.75	1703.8	-0.3	-0.1	13.3	1702.7	1.1
111	1001	0001	1694.38	1724.9	0.1	0.2	21.1	1718.6	6.4
112	1001	0000	1710.00	1740.6	0.2	0.0	15.7	1734.4	6.2
113	1000	1111	1725.63	1749.5	-0.3	-0.3	8.8	1750.2	-0.7
114	1000	1110	1741.25	1769.3	-0.0	0.4	9.8	1766.0	-6.7
115	1000	1101	1756.88	1785.6	0.2	0.2	26.3	1781.8	3.8
116	1000	1100	1772.50	1799.6	0.4	0.4	14.0	1797.6	2.0
117	1000	1011	1788.13	1816.1	-0.3	0.0	16.4	1813.5	2.6
118	1000	1010	1803.75	1826.5	0.2	0.2	10.4	1829.3	-2.8
119	1000	1001	1819.38	1850.1	0.2	0.0	23.6	1845.1	5.0
120	1000	1000	1835.00	1862.7	-0.1	-0.3	12.6	1860.9	1.8
121	1000	0111	1850.63	1875.7	0.0	0.2	13.0	1876.7	-1.0
122	1000	0110	1866.25	1885.4	0.1	0.2	9.7	1892.6	-7.1
123	1000	0101	1881.88	1910.4	-0.2	-0.2	25.0	1908.4	2.1
124	1000	0100	1897.50	1930.5	0.3	0.0	20.1	1924.2	6.4
125	1000	0011	1913.13	1942.0	0.2	0.2	11.5	1940.0	2.0
126	1000	0010	1928.75	1956.3	0.3	-0.3	14.3	1955.8	0.5
127	1000	0001	1944.38	1976.9	-0.2	-0.1	20.6	1971.6	5.2
128	1000	0000	1960.00	1985.2	0.0	0.4	8.3	1987.5	-2.3
129	0111	1111	1975.63	2002.5	0.0	-3.2	17.3	2003.3	-0.8
130	0111	1110	1991.25	2009.5	-0.5	-0.4	7.0	2019.1	-9.6

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HP-236 THERMATIC MOFFER MIX UNIT TEST MODH... FLT. S/N 3 PAGE 212
1981/11/30 11:22:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
11.5...11.5-11 AND THRESHOLD TEST (RANGE= 1 & SENSOR=13)

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (KV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2035.4	-0.1	0.0	25.9	2034.9	0.5
132	0111 1100	2022.50	2048.6	-0.0	-0.1	13.2	2050.7	-2.2
133	0111 1011	2038.13	2065.9	0.3	0.0	17.3	2066.5	-0.7
134	0111 1010	2053.75	2076.6	-0.1	-0.2	10.7	2082.4	-5.8
135	0111 1001	2069.38	2101.6	0.0	0.2	25.0	2098.2	3.4
136	0111 1000	2085.00	2103.6	0.0	0.1	2.0	2114.0	-10.4
137	0111 0111	2100.63	2126.3	-0.2	-0.3	22.7	2129.8	-3.5
138	0111 0110	2116.25	2135.5	-0.1	3.4	9.2	2145.6	-10.2
139	0111 0101	2131.88	2161.6	-0.1	-0.1	26.2	2161.5	0.2
140	0111 0100	2147.50	2177.6	0.0	0.0	16.0	2177.3	0.4
141	0111 0011	2163.13	2192.6	-0.3	-0.2	15.0	2193.1	-0.5
142	0111 0010	2178.75	2206.7	0.1	0.4	14.1	2208.9	-2.2
143	0111 0001	2194.38	2227.8	0.2	0.2	21.1	2224.7	3.1
144	0111 0000	2210.00	2236.9	-0.2	-0.4	9.1	2240.5	-3.7
145	0110 1111	2225.63	2251.7	-0.3	0.0	14.8	2256.4	-4.6
146	0110 1110	2241.25	2262.2	0.1	0.1	10.5	2272.2	-9.9
147	0110 1101	2256.88	2287.7	0.1	-0.0	25.5	2288.0	-0.3
148	0110 1100	2272.50	2302.8	0.5	0.6	15.1	2303.8	-1.0
149	0110 1011	2288.13	2318.3	0.0	0.2	15.5	2319.6	-1.4
150	0110 1010	2303.75	2330.1	0.1	0.4	11.8	2335.4	-5.3
151	0110 1001	2319.38	2354.3	-0.3	-0.2	24.2	2351.3	3.0
152	0110 1000	2335.00	2360.2	-0.2	-0.0	5.9	2367.1	-6.9
153	0110 0111	2350.63	2378.3	0.2	0.2	18.1	2382.9	-4.6
154	0110 0110	2366.25	2388.1	0.1	-0.0	9.2	2398.7	-10.6
155	0110 0101	2381.88	2414.3	-0.2	-0.4	26.2	2414.5	-0.2
156	0110 0100	2397.50	2434.4	0.0	-0.4	20.0	2430.4	4.0
157	0110 0011	2413.13	2444.7	0.3	0.3	10.3	2446.2	-1.5

HS-206 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 213
 1981/11/30 11:27:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-5-8-10 AND THRESHOLD TEST (BAND= 1, SENSOR=13)



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THRESHOLD NUMBER	A/D THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
158	0110 0010	2428.75	2440.6	-0.4	-0.7	15.9	2462.0	-1.3
159	0110 0001	2444.38	2480.3	0.0	0.0	19.6	2477.8	2.5
160	0110 0000	2460.00	2485.4	-1.3	-1.2	5.1	2493.6	-8.2
161	0101 1111	2475.63	2503.2	0.3	-0.1	17.8	2509.4	-6.3
162	0101 1110	2491.25	2513.1	-0.5	-0.5	9.9	2525.3	-12.2
163	0101 1101	2506.88	2539.5	-0.1	0.3	26.4	2541.1	-1.6
164	0101 1100	2522.50	2553.8	-0.4	-0.4	14.3	2556.9	-3.1
165	0101 1011	2538.13	2570.5	-0.3	-0.3	16.7	2572.7	-2.2
166	0101 1010	2553.75	2580.5	-0.3	-0.1	10.0	2588.5	-8.1
167	0101 1001	2569.38	2606.0	0.1	0.2	25.6	2604.3	1.7
168	0101 1000	2585.00	2610.7	0.1	0.0	4.7	2620.2	-9.4
169	0101 0111	2600.63	2630.5	-0.4	-0.3	19.8	2636.0	-5.4
170	0101 0110	2616.25	2639.1	-0.1	0.1	8.6	2651.8	-12.7
171	0101 0101	2631.88	2665.8	0.5	0.3	26.6	2667.6	-1.9
172	0101 0100	2647.50	2682.6	0.5	0.4	16.8	2683.4	-0.9
173	0101 0011	2663.13	2697.0	-0.3	-0.0	14.4	2699.3	-2.3
174	0101 0010	2678.75	2710.8	0.1	0.0	13.8	2715.1	-4.3
175	0101 0001	2694.38	2732.4	0.0	-0.0	21.6	2730.9	1.5
176	0101 0000	2710.00	2744.5	-0.1	-0.0	12.1	2746.7	-2.2
177	0100 1111	2725.63	2755.6	-0.0	0.2	11.0	2762.5	-7.0
178	0100 1110	2741.25	2765.8	0.3	0.4	10.2	2778.3	-12.6
179	0100 1101	2756.88	2792.1	-0.3	-0.3	26.4	2794.2	-2.0
180	0100 1100	2772.50	2807.4	0.3	-0.0	15.3	2810.0	-2.5
181	0100 1011	2788.13	2822.6	0.3	0.2	15.2	2825.8	-3.1
182	0100 1010	2803.75	2834.0	0.3	-0.2	11.3	2841.6	-7.6
183	0100 1001	2819.38	2858.6	-0.3	-0.3	24.6	2857.4	1.2

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TEST LOG THERMATIC MASTER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 214

1981/11/30 11:22:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TEST LOG THERMATIC MASTER MIX UNIT TEST CHANNEL= 1 SENNOR=13

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VOLTAGE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
187	0100 1000	2835.00	2870.4	-0.1	0.1	11.8	2873.2	-2.8
188	0100 0111	2850.63	2882.6	0.3	0.2	12.2	2889.1	-4.4
189	0100 0110	2866.25	2891.6	-0.0	0.0	9.0	2904.9	-13.2
187	0100 0101	2881.88	2918.7	-0.2	-0.0	27.0	2920.7	-2.0
183	0100 0100	2897.50	2939.1	-0.5	-0.4	20.5	2936.5	2.6
182	0100 0011	2913.13	2949.2	0.2	0.0	10.1	2957.3	-3.1
188	0100 0010	2928.75	2964.3	-0.0	0.0	15.1	2968.2	-3.9
187	0100 0001	2944.38	2984.2	0.0	0.0	19.9	2984.0	0.3
182	0100 0000	2960.00	2999.6	-0.7	-0.6	15.3	2999.8	-0.2
193	0011 1111	2975.63	3013.1	-0.3	-0.3	13.5	3015.6	-2.5
192	0011 1110	2991.25	3020.4	-0.3	0.4	7.3	3031.4	-11.0
191	0011 1101	3006.88	3047.8	0.1	0.2	27.3	3047.2	0.5
194	0011 1100	3022.50	3060.6	-0.6	0.1	12.8	3069.1	-2.5
197	0011 1011	3038.13	3078.9	-0.3	-0.3	18.4	3078.9	0.1
192	0011 1010	3053.75	3082.8	0.0	0.3	8.8	3094.2	-6.9
199	0011 1001	3069.38	3114.5	0.3	0.3	26.7	3110.5	4.0
200	0011 1000	3085.00	3115.4	0.0	0.1	0.9	3126.3	-10.9
201	0011 0111	3100.63	3139.2	-0.5	1.3	23.2	3142.1	-3.0
202	0011 0110	3116.25	3150.4	0.3	0.2	11.2	3158.0	-7.5
203	0011 0101	3131.88	3174.9	0.1	0.0	24.6	3173.8	1.2
203	0011 0100	3147.50	3190.1	0.7	0.8	15.1	3189.6	0.5
207	0011 0011	3163.13	3205.9	-0.0	0.3	15.8	3205.4	0.5
208	0011 0010	3178.75	3219.3	-0.1	0.1	13.4	3221.2	-2.0
207	0011 0001	3194.38	3242.1	-0.5	-0.3	22.8	3237.1	5.0
208	0011 0000	3210.00	3252.2	0.5	0.5	10.6	3252.9	-0.1
209	0010 1111	3225.63	3264.8	0.6	0.7	12.0	3268.2	-3.9

HS-216 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 215
 1981/11/30 11:27:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 ANALOG INPUT THRESHOLD TEST (BAND= 1, SENSOR=13)

11/30/81
 11:27:05

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3274.7	0.1	0.1	9.9	3284.5	-9.8
211	0010 1101	3256.88	3302.0	-0.2	-0.2	27.4	3300.3	1.7
212	0010 1100	3272.50	3316.7	-0.0	1.3	14.7	3316.1	0.6
213	0010 1011	3288.13	3332.8	0.4	0.4	16.1	3332.0	0.9
214	0010 1010	3303.75	3343.4	-0.1	-0.1	10.5	3347.8	-4.4
215	0010 1001	3319.38	3369.3	-0.5	-0.3	25.9	3363.6	5.7
216	0010 1000	3335.00	3374.4	0.1	-0.1	5.1	3379.4	-5.0
217	0010 0111	3350.63	3395.1	0.3	0.1	20.7	3395.2	-0.1
218	0010 0110	3366.25	3405.8	-3.6	-0.3	10.7	3411.0	-5.2
219	0010 0101	3381.88	3429.5	-0.1	0.3	23.7	3426.9	2.7
220	0010 0100	3397.50	3449.2	-1.0	-1.0	19.7	3442.7	6.5
221	0010 0011	3413.13	3461.0	-0.7	-0.8	11.8	3458.5	2.5
222	0010 0010	3428.75	3475.5	-0.2	-0.3	14.5	3474.3	1.2
223	0010 0001	3444.38	3496.6	-0.0	0.1	21.1	3490.1	6.5
224	0010 0000	3460.00	3505.8	-1.1	0.0	9.1	3506.0	-0.2
225	0001 1111	3475.63	3519.8	-0.5	-0.4	14.1	3521.8	-1.9
226	0001 1110	3491.25	3528.1	-0.1	0.3	8.3	3537.6	-9.5
227	0001 1101	3506.88	3556.5	0.1	0.3	28.4	3553.4	3.1
228	0001 1100	3522.50	3569.3	0.8	0.8	12.8	3569.2	0.1
229	0001 1011	3538.13	3587.9	-0.6	-0.4	18.6	3585.0	2.9
230	0001 1010	3553.75	3596.8	-0.0	-0.1	8.8	3600.9	-4.1
231	0001 1001	3569.38	3623.7	0.5	0.1	27.0	3616.7	7.1
232	0001 1000	3585.00	3627.8	0.2	0.2	4.1	3632.5	-4.7
233	0001 0111	3600.63	3649.9	0.0	0.2	22.1	3648.3	1.6
234	0001 0110	3616.25	3659.6	0.1	0.5	9.6	3664.1	-4.5
235	0001 0101	3631.88	3685.2	-0.4	-0.3	25.6	3679.9	5.2
236	0001 0100	3647.50	3700.4	0.7	0.9	15.2	3695.8	4.6

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HS 226 THERMATIC MASTER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 216
 1981/11/30 11:27:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 SENSITIVITY AND THRESHOLD TEST (RAND= 1, SENSOR=13)



THRESHOLD NUMBER	A/D THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO - LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3714.5	0.1	0.4	14.1	3711.6	4.9
238	0001 0010	3678.75	3729.1	0.2	0.0	12.6	3727.4	1.7
239	0001 0001	3691.38	3752.7	-0.6	-0.5	23.6	3743.2	9.5
240	0001 0000	3710.00	3767.4	-0.7	0.0	14.7	3759.0	8.4
241	0000 1111	3725.63	3775.5	0.4	0.5	8.1	3774.9	0.7
242	0000 1110	3741.25	3785.1	-0.1	-0.1	9.6	3790.7	-5.6
243	0000 1101	3756.88	3813.1	-0.5	-0.3	28.0	3806.5	6.7
244	0000 1100	3772.50	3828.0	-0.6	-0.6	14.8	3822.3	5.7
245	0000 1011	3788.13	3844.1	0.3	-0.0	16.1	3838.1	6.0
246	0000 1010	3803.75	3854.6	-0.2	-0.1	10.5	3853.9	0.6
247	0000 1001	3819.38	3880.5	-0.9	0.3	25.9	3869.8	10.7
248	0000 1000	3835.00	3890.5	-0.3	0.1	10.0	3885.6	4.9
249	0000 0111	3850.63	3907.1	-0.2	-0.2	16.6	3901.4	5.7
250	0000 0110	3866.25	3917.1	-0.2	-0.2	10.1	3917.2	-0.1
251	0000 0101	3881.88	3941.6	0.1	0.3	24.5	3933.0	8.6
252	0000 0100	3897.50	3961.8	-1.4	0.0	20.1	3948.8	12.9
253	0000 0011	3913.13	3973.9	-0.5	-0.3	12.1	3964.7	9.2
254	0000 0010	3928.75	3987.4	-0.1	0.3	13.5	3980.5	7.0
255	0000 0001	3944.38	4008.7	-0.0	0.0	21.3	3996.3	12.4

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HS-226 THERMALIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 217

1981/11/30 11:33:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5-4.5-H A/D THRESHOLD TEST (HAND= 1, SENSOR=1.4)
SUMMARY



NO 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 = THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

LEAST FIT STRAIGHT LINE IS: Y =15.845X -38.6MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.409%

OFFSET IS:-38.6MV

COEFFICIENT OF DETERMINATION IS: R*X2= .99998530

ANALOG INPUT DURING DC RESTORE IS:64.5MV

RMS ERROR = 4.708MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
28.4MV	201	15.927MV	1.9MV	200	5.358MV

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.7MV	129	-0.018MV	-2.1MV	58	.489MV

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.7MV	129	0.018MV	-2.5MV	24	.556MV

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TEST PASSED

HS-236 THEMATIC MAPPER MIX UNIT TEST MODH... FLT. S/N 3 PAGE 218

1981/11/30 11:33:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.113.5-8 AND THRESHOLD TEST (BAND= 1, SENSOR=14)



INCREASED AND OUTPUT DECREASED THRESHOLD	IDEAL VALUE (KV)	ANALOG INPUT VOLTAGE (KV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION

EN 30 W

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-29.4	-1.1	0.3		-72.8	-4.7
2	1111 1110	-8.750	-14.2	-0.0	0.5	13.2	-6.9	-9.3
3	1111 1101	6.875	7.1	0.8	0.8	23.3	8.9	-1.8
4	1111 1100	22.500	19.8	0.7	0.6	12.7	24.8	-5.0
5	1111 1011	38.125	33.1	0.1	0.2	18.2	40.6	-2.6
6	1111 1010	53.750	51.1	0.0	-0.1	13.0	54.5	-5.4
7	1111 1001	69.375	74.4	-0.1	-0.0	23.3	72.3	2.1
8	1111 1000	85.000	81.0	-1.0	-0.9	6.7	88.2	-7.1
9	1111 0111	100.625	99.3	-0.0	0.2	18.3	104.0	-4.7
10	1111 0110	116.250	114.7	0.5	0.5	15.4	119.8	-5.1
11	1111 0101	131.875	135.4	-0.0	0.0	20.6	135.7	-0.3
12	1111 0100	147.500	152.0	0.2	0.3	16.6	151.5	0.4
13	1111 0011	163.125	166.5	-0.2	-0.1	14.5	167.4	-0.9
14	1111 0010	178.750	182.5	-0.1	0.0	16.0	183.2	-0.7
15	1111 0001	194.375	202.4	-0.1	0.0	19.9	199.1	3.4
16	1111 0000	210.000	212.1	-0.1	0.4	9.7	214.9	-2.8
17	1110 1111	225.625	226.9	-0.2	-0.1	14.8	230.8	-3.9
18	1110 1110	241.250	240.8	-0.1	-0.6	14.0	246.6	-5.8
19	1110 1101	256.875	264.0	-1.1	-1.2	23.2	267.5	1.6
20	1110 1100	272.500	279.1	-0.4	-0.3	15.1	278.3	0.8
21	1110 1011	288.125	294.2	-0.2	0.0	15.0	294.1	0.0
22	1110 1010	303.750	307.6	0.1	0.2	13.4	310.0	-2.4
23	1110 1001	319.375	330.1	-0.1	-0.1	22.6	325.8	4.3
24	1110 1000	335.000	342.1	1.0	1.1	12.0	341.7	0.5
25	1110 0111	350.625	354.9	-0.1	0.2	12.8	357.5	-2.6

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HS 206 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 219

1981/11/30 11:33:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5-3.5-8 A/D THRESHOLD TEST (BAND= 1, SENSOR=14)

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO- LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	371.5	-0.9	-2.5	16.6	373.4	-1.8
27	1110 0101	381.875	391.0	-0.1	-0.1	19.5	389.2	1.8
28	1110 0100	397.500	411.5	-0.3	0.0	20.5	405.1	6.4
29	1110 0011	413.125	422.1	0.1	0.1	10.6	420.9	1.1
30	1110 0010	428.750	438.8	-0.1	0.2	16.8	436.8	2.1
31	1110 0001	444.375	458.0	0.0	0.0	19.1	452.6	5.4
32	1110 0000	460.000	463.1	-0.0	0.2	5.1	468.4	-5.3
33	1101 1111	475.625	481.8	0.0	0.1	18.7	484.3	-2.4
34	1101 1110	491.250	494.3	0.3	0.3	12.5	500.1	-5.8
35	1101 1101	506.875	517.9	1.1	0.0	23.5	516.0	1.9
36	1101 1100	522.500	530.9	0.4	0.9	13.0	531.8	-0.9
37	1101 1011	538.125	549.2	-0.0	-0.2	18.3	547.7	1.5
38	1101 1010	553.750	561.1	-0.2	-0.2	11.9	563.5	-2.4
39	1101 1001	569.375	584.7	-0.0	0.3	23.6	579.4	5.3
40	1101 1000	585.000	594.3	-0.9	-1.0	9.7	595.2	-0.9
41	1101 0111	600.625	609.9	-0.3	-0.2	15.6	611.0	-1.1
42	1101 0110	616.250	624.8	0.3	0.0	14.9	626.9	-2.1
43	1101 0101	631.875	645.5	0.0	0.1	20.7	642.7	2.8
44	1101 0100	647.500	663.0	-0.1	-0.3	17.5	658.6	4.4
45	1101 0011	663.125	676.8	-0.1	-0.1	13.8	674.4	2.4
46	1101 0010	678.750	691.9	-0.1	0.2	15.0	690.3	1.6
47	1101 0001	694.375	712.4	0.0	0.0	20.5	706.1	6.3
48	1101 0000	710.000	725.9	0.5	0.5	13.5	722.0	4.0
49	1100 1111	725.625	736.7	-0.2	-0.0	10.8	737.8	-1.1
50	1100 1110	741.250	749.9	-0.5	-0.4	13.2	753.7	-3.7
51	1100 1101	756.875	772.5	-0.1	1.1	22.5	769.5	3.0

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HS-226 THERMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 220

1981/11/30 11:33:41 FINALITY FULL PERFORMANCE P AMBIENT TEMP.

PLATE 14-1-A AND THRESHOLD TEST (BAND= 1, SENSOR=14)



THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVATION
52	1100 1100	772.500	788.8	-0.3	-0.3	16.3	785.3 3.4
53	1100 1011	789.125	803.3	-0.0	0.2	14.5	801.2 2.1
54	1100 1010	803.750	816.1	0.2	0.2	12.7	817.0 -1.0
55	1100 1001	819.375	839.0	-0.2	-0.1	22.9	832.9 6.1
56	1100 1000	835.000	851.6	1.0	-0.0	12.7	848.7 2.9
57	1100 0111	850.625	863.7	0.2	0.1	12.1	864.6 -0.8
58	1100 0110	866.250	879.2	-2.1	0.6	15.4	880.4 -1.7
59	1100 0101	881.875	899.3	-0.1	-0.1	20.1	896.3 3.0
60	1100 0100	897.500	920.0	-0.1	0.1	20.7	912.1 7.8
61	1100 0011	913.125	930.3	0.1	0.1	10.3	928.0 2.3
62	1100 0010	928.750	946.3	-0.0	0.0	16.0	943.3 2.5
63	1100 0001	944.375	965.8	-0.0	-0.1	19.5	959.6 6.2
64	1100 0000	960.000	978.7	-0.3	-0.2	12.8	971.5 3.2
65	1011 1111	975.625	993.2	0.0	-0.3	14.5	991.3 1.9
66	1011 1110	991.250	1004.7	0.2	0.3	11.5	1007.2 -2.4
67	1011 1101	1006.875	1030.0	-0.1	-1.4	25.2	1023.0 7.0
68	1011 1100	1022.500	1041.2	0.3	0.3	11.2	1038.9 2.3
69	1011 1011	1038.125	1060.2	-0.3	-0.3	18.9	1054.7 5.4
70	1011 1010	1053.750	1070.7	-0.2	-0.1	10.5	1070.6 0.2
71	1011 1001	1069.375	1094.8	0.3	0.3	24.0	1086.4 8.4
72	1011 1000	1085.000	1099.8	0.0	0.9	5.1	1102.2 -2.4
73	1011 0111	1100.625	1120.3	-0.3	-0.3	20.4	1118.1 2.2
74	1011 0110	1116.250	1134.7	-0.1	-0.5	14.4	1133.9 0.8
75	1011 0101	1131.875	1155.2	0.1	0.1	20.4	1149.8 5.4
76	1011 0100	1147.500	1171.7	-0.3	-0.3	16.5	1165.6 6.0
77	1011 0011	1163.125	1187.1	-0.3	-0.0	15.4	1181.5 5.6
78	1011 0010	1178.750	1200.5	0.3	0.3	13.4	1197.3 3.2

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HS-236 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 721

1981/11/30 11:33:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.15.13.15-8 A/D THRESHOLD TEST (BAND= 1, SENSOR=14)



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TDFAI VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1222.3	-0.0	-0.4	21.8	1213.2	9.2
80	1011 0000	1210.00	1233.9	0.5	0.4	11.6	1229.0	4.9
81	1010 1111	1225.63	1245.9	0.0	0.1	12.0	1244.9	1.0
82	1010 1110	1241.25	1258.5	-0.7	-0.7	12.6	1260.7	-2.2
83	1010 1101	1256.88	1281.4	1.5	1.4	22.9	1276.5	4.9
84	1010 1100	1272.50	1296.7	-0.3	0.0	15.2	1292.4	4.3
85	1010 1011	1288.13	1312.6	0.3	0.3	15.9	1308.2	4.3
86	1010 1010	1303.75	1324.4	0.0	-0.2	11.8	1324.1	0.3
87	1010 1001	1319.38	1347.7	-0.3	-0.3	23.3	1339.9	7.8
88	1010 1000	1335.00	1357.7	-0.0	-1.0	10.0	1355.8	2.0
89	1010 0111	1350.63	1372.6	0.3	0.4	14.9	1371.6	1.0
90	1010 0110	1366.25	1387.0	0.9	0.8	14.4	1387.5	-0.5
91	1010 0101	1381.88	1407.9	-0.1	-0.1	20.9	1403.3	4.6
92	1010 0100	1397.50	1427.4	0.0	-0.0	19.5	1419.2	8.2
93	1010 0011	1413.13	1439.5	0.0	-0.3	12.1	1435.0	4.5
94	1010 0010	1428.75	1454.7	-0.5	-0.5	15.1	1450.8	3.8
95	1010 0001	1444.38	1474.3	-0.0	0.4	19.6	1466.7	7.6
96	1010 0000	1460.00	1483.0	0.3	0.2	8.8	1482.5	0.5
97	1001 1111	1475.63	1498.1	-0.1	-0.1	15.0	1498.4	-0.3
98	1001 1110	1491.25	1509.0	0.2	-0.1	10.9	1514.2	-5.2
99	1001 1101	1506.88	1534.8	0.3	0.3	25.8	1530.1	4.8
100	1001 1100	1522.50	1545.7	0.0	-0.2	10.8	1545.9	-0.3
101	1001 1011	1538.13	1564.4	0.0	-0.0	18.0	1561.8	2.7
102	1001 1010	1553.75	1574.6	0.0	0.2	10.2	1577.6	-3.0
103	1001 1001	1569.38	1599.5	0.1	0.2	24.9	1593.5	6.0
104	1001 1000	1585.00	1607.2	1.0	1.0	7.7	1609.3	-2.1

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HS-236 THERMATIC HALPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 222
 1981/11/30 11:33:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 0.11.14.14-13 AND THRESHOLD TEST (RAND= 4, SENSOR=14)

HAC
TEST
S27

REV 30 81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
103 1001 0111	1600.63	1625.0 -0.4 0.0	17.7	1625.1 -0.2
104 1001 0110	1616.25	1638.7 -0.4 -0.4	13.8	1641.0 -2.3
107 1001 0101	1631.88	1659.9 -0.0 1.4	21.2	1656.8 3.1
108 1001 0100	1647.50	1676.3 -0.1 -0.1	16.3	1672.7 3.6
109 1001 0011	1663.13	1691.3 0.0 0.3	15.0	1688.5 2.8
110 1001 0010	1678.75	1704.6 0.3 0.2	13.3	1704.4 0.3
111 1001 0001	1694.38	1726.7 -0.8 -0.6	22.0	1720.2 6.5
112 1001 0000	1710.00	1742.1 0.7 -0.0	15.4	1736.1 6.1
113 1000 1111	1725.63	1750.5 0.1 0.1	8.4	1751.9 -1.4
114 1000 1110	1741.25	1762.0 0.0 0.3	11.5	1762.7 -0.7
115 1000 1101	1756.88	1786.2 1.1 1.1	24.1	1783.6 2.6
116 1000 1100	1772.50	1800.9 0.0 0.3	14.7	1799.4 1.5
117 1000 1011	1788.13	1816.9 0.3 0.4	16.0	1815.3 1.6
118 1000 1010	1803.75	1828.2 -0.3 -0.3	11.3	1831.1 -2.9
119 1000 1001	1819.38	1852.1 -0.2 -0.1	23.9	1847.0 5.1
120 1000 1000	1835.00	1865.0 -1.2 -1.0	12.9	1862.8 2.1
121 1000 0111	1850.63	1877.2 -0.0 -0.3	12.2	1878.7 -1.5
122 1000 0110	1866.25	1891.2 0.3 0.5	14.0	1894.5 -3.1
123 1000 0101	1881.88	1913.5 0.0 -1.2	22.3	1910.4 3.2
124 1000 0100	1897.50	1932.0 -0.0 0.1	18.5	1926.2 5.3
125 1000 0011	1913.13	1943.6 -0.1 0.0	11.5	1942.0 1.5
126 1000 0010	1928.75	1958.4 -0.5 -0.1	14.8	1957.9 0.5
127 1000 0001	1944.38	1978.4 0.5 0.4	20.0	1973.7 4.7
128 1000 0000	1960.00	1987.2 0.0 0.7	8.8	1989.6 -2.4
129 0111 1111	1975.63	2000.8 1.7 1.7	13.6	2005.4 -4.6
130 0111 1110	1991.25	2012.7 0.0 -0.4	11.9	2021.3 -8.6

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HS-236 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 223
 1981/11/30 11:23:41 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
 (1,17,3,15-8) A/D THRESHOLD TEST (RANGE= 1 + SENSOR=14)

HAC
TEST
S27

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THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2037.3	0.5	0.4	2037.1	0.2
132	0111 1100	2022.50	2050.0	0.1	0.0	2053.0	-2.9
133	0111 1011	2038.13	2068.1	-0.4	0.0	2068.8	-0.7
134	0111 1010	2053.25	2078.5	0.1	0.3	2084.7	-6.1
135	0111 1001	2069.38	2102.6	-0.0	1.2	2100.5	2.1
136	0111 1000	2085.00	2106.5	0.9	0.9	2116.3	-9.9
137	0111 0111	2100.63	2127.7	-0.1	0.4	2132.2	-4.5
138	0111 0110	2116.25	2142.4	-0.5	-0.5	2148.0	-5.7
139	0111 0101	2131.88	2164.5	-0.4	-0.4	2163.9	0.6
140	0111 0100	2147.50	2180.2	-0.2	0.0	2179.7	0.5
141	0111 0011	2163.13	2194.7	0.2	0.2	2195.6	-0.9
142	0111 0010	2178.75	2209.1	-0.0	-0.2	2211.4	-2.3
143	0111 0001	2194.38	2229.8	0.2	0.2	2227.3	2.6
144	0111 0000	2210.00	2239.4	-0.0	-0.6	2243.1	-3.7
145	0110 1111	2225.63	2253.3	0.4	0.5	2258.9	-5.6
146	0110 1110	2241.25	2265.6	0.6	0.5	2274.8	-9.2
147	0110 1101	2256.88	2290.7	-0.5	-0.1	2290.6	0.1
148	0110 1100	2272.50	2305.1	0.0	1.6	2306.5	-1.4
149	0110 1011	2288.13	2320.9	-0.0	-0.4	2322.3	-1.4
150	0110 1010	2303.75	2332.6	0.3	-0.3	2338.2	-5.5
151	0110 1001	2319.38	2356.6	-0.0	-1.5	2354.0	2.6
152	0110 1000	2335.00	2364.3	-1.0	-1.3	2369.9	-5.5
153	0110 0111	2350.63	2380.9	-0.5	-0.5	2385.7	-4.8
154	0110 0110	2366.25	2395.1	0.3	-0.0	2401.6	-6.4
155	0110 0101	2381.88	2416.8	0.5	0.4	2417.4	-0.6
156	0110 0100	2397.50	2435.7	0.0	0.0	2433.2	2.5
157	0110 0011	2413.13	2447.6	-0.3	-0.3	2449.1	-1.5

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OF POOR QUALITY

9.7.18-0 200 REFRESHED THER (COND= 1, SENSOR=14)

HAC
TEST
527

TEST POINT	A/D OUTPUT TEST POINT	IDEAL VALUE (mV)	ANALOG INPUT VOLTAGE LEVELS RATIO - NOMINAL	LOWER	UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT	DEVIATION
153	0110 0010	2428.75	2462.7	0.0	0.4	15.1	2464.9	-2.2
154	0110 0001	2444.38	2482.9	-0.4	-0.3	20.2	2480.8	2.1
155	0110 0000	2450.00	2487.5	0.0	-0.0	4.6	2484.6	-9.2
161	0101 1111	2475.63	2506.0	-0.5	0.0	18.5	2512.5	-6.5
162	0101 1110	2491.25	2517.5	-0.1	0.0	11.5	2528.3	-10.9
163	0101 1101	2506.88	2543.1	0.0	-0.5	25.6	2544.2	-1.1
164	0101 1100	2522.50	2555.2	0.2	0.2	12.6	2560.0	-4.3
165	0101 1011	2538.13	2572.2	-0.0	0.3	16.9	2575.9	-3.2
166	0101 1010	2553.75	2582.9	0.1	0.2	10.2	2591.7	-8.8
167	0101 1001	2569.38	2609.4	-0.3	-0.3	26.4	2607.5	1.8
168	0101 1000	2585.00	2614.0	1.1	-0.0	4.7	2623.4	-9.3
169	0101 0111	2600.63	2632.6	0.5	0.5	18.6	2639.2	-6.6
170	0101 0110	2616.25	2646.2	0.0	0.5	13.6	2655.1	-8.8
171	0101 0101	2631.88	2669.8	-0.5	-0.5	23.5	2670.9	-1.2
172	0101 0100	2647.50	2685.6	-1.0	-0.1	15.8	2686.8	-1.2
173	0101 0011	2663.13	2699.8	0.4	0.4	14.2	2701.6	-2.9
174	0101 0010	2678.75	2713.6	-0.3	-0.4	13.8	2718.5	-4.8
175	0101 0001	2694.38	2735.0	0.5	0.6	21.4	2734.3	0.7
176	0101 0000	2710.00	2748.5	-0.2	-0.6	13.4	2750.2	-1.7
177	0100 1111	2725.63	2758.5	0.1	-0.9	10.0	2766.0	-7.5
178	0100 1110	2741.25	2770.1	0.5	0.6	11.6	2781.8	-11.8
179	0100 1101	2756.88	2795.4	-0.1	0.4	25.3	2797.2	-2.3
180	0100 1100	2772.50	2810.6	-0.1	-0.0	15.2	2813.5	-2.9
181	0100 1011	2788.13	2826.1	-0.6	-0.5	15.5	2829.4	-3.3
182	0100 1010	2803.75	2837.1	-0.3	-0.0	11.0	2837.2	-8.1
183	0100 1001	2819.38	2861.9	0.5	0.5	24.8	2861.1	0.9

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OF POOR QUALITY

16-226 THERMATIC KATFER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 225

1981/11/30 11:33:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

RELATIVE HUMIDITY AND THRESHOLD TEST (RAND= 1, SENSOR=14)

HAC
TEST
S27

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
184 0100 1000	2835.00	2871.5 -0.6 0.9	9.5	2876.9 -5.4
185 0100 0111	2850.63	2886.0 -0.5 -0.5	14.5	2897.8 -6.8
186 0100 0110	2866.25	2900.4 -0.0 -0.6	14.4	2908.6 -8.2
187 0100 0101	2881.88	2922.0 0.7 0.7	21.6	2924.4 -7.5
188 0100 0100	2897.50	2942.1 0.0 0.0	20.1	2940.3 1.8
189 0100 0011	2913.13	2953.3 -0.4 0.0	11.7	2956.1 -2.9
190 0100 0010	2928.75	2967.5 0.4 0.6	14.2	2972.0 -4.4
191 0100 0001	2944.38	2988.9 -0.1 -0.5	21.4	2987.8 1.1
192 0100 0000	2960.00	3002.9 0.0 0.2	14.0	3003.7 -0.7
193 0011 1111	2975.63	3014.4 0.0 0.4	11.4	3019.5 -5.1
194 0011 1110	2991.25	3025.5 -0.8 -0.8	11.1	3030.4 -9.9
195 0011 1101	3006.88	3052.3 -0.6 -0.7	26.9	3051.2 1.1
196 0011 1100	3022.50	3063.0 0.5 0.0	10.7	3067.1 -4.0
197 0011 1011	3038.13	3082.0 0.5 0.5	19.0	3082.9 -0.9
198 0011 1010	3053.75	3091.7 0.0 -0.1	9.4	3098.7 -7.1
199 0011 1001	3069.38	3119.1 -0.6 -0.6	27.4	3114.6 4.5
200 0011 1000	3085.00	3121.0 -0.0 -1.2	1.9	3130.4 -9.4
201 0011 0111	3100.63	3142.3 0.4 0.6	21.3	3146.3 -4.0
202 0011 0110	3116.25	3170.4 0.5 0.5	13.1	3162.1 -6.8
203 0011 0101	3131.88	3180.0 -0.7 -0.0	24.6	3178.0 2.0
204 0011 0100	3147.50	3193.9 0.0 0.0	14.0	3193.8 0.1
205 0011 0011	3163.13	3210.1 0.1 -0.1	16.2	3209.7 0.4
206 0011 0010	3178.75	3223.2 -0.4 -0.2	13.0	3225.5 -2.4
207 0011 0001	3194.38	3246.1 -0.1 -0.3	22.9	3241.4 4.7
208 0011 0000	3210.00	3257.7 -0.9 -0.7	11.6	3257.2 0.5
209 0010 1111	3225.63	3269.6 -0.8 -0.7	11.9	3273.0 -3.5

ORIGINAL PAGE IS
OF POOR QUALITY

HS-214 THERMATIC MASTER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 226
 1981/11/30 11:43:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 11.11.11.11.11 AND THRESHOLD TEST (RANGE= 1, SENSOR=14)

HAC
TFST
S27

THRESHOLD AND OUTPUT			ANALOG INPUT VOLTAGE (mV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
NUMBER	THRESHOLD	IDEAL VALUE (mV)	NOMINAL	LOWER	UPPER		POTNC	DEVIATION
210	0010 1110	3241.25	3280.0	0.7	-9.1	10.5	3288.9	-8.8
211	0010 1101	3256.88	3306.5	0.6	0.5	26.4	3304.7	1.7
212	0010 1100	3272.50	3320.3	1.6	0.2	13.8	3320.6	-0.3
213	0010 1011	3288.13	3337.3	-0.5	-0.5	17.0	3336.4	0.9
214	0010 1010	3303.75	3347.2	0.0	0.1	9.9	3352.3	-5.1
215	0010 1001	3319.38	3373.6	0.6	0.6	26.3	3368.1	5.5
216	0010 1000	3335.00	3378.9	1.6	1.6	5.3	3384.0	-5.0
217	0010 0111	3350.63	3397.8	-0.6	-0.0	18.9	3399.8	-2.0
218	0010 0110	3366.25	3411.6	-0.6	-0.6	13.7	3415.6	-4.1
219	0010 0101	3381.88	3435.0	-0.1	-0.8	23.4	3431.5	3.5
220	0010 0100	3397.50	3453.0	0.2	0.3	18.0	3447.3	5.7
221	0010 0011	3413.13	3465.3	-0.1	0.6	12.3	3463.2	2.1
222	0010 0010	3428.75	3479.5	0.3	0.2	14.2	3479.0	0.5
223	0010 0001	3444.38	3502.0	-0.4	-0.4	22.4	3494.9	7.1
224	0010 0000	3460.00	3509.9	-0.1	-0.1	7.9	3510.7	-0.8
225	0001 1111	3475.63	3524.0	0.5	0.6	14.1	3526.6	-2.6
226	0001 1110	3491.25	3533.9	-0.0	0.7	10.0	3542.4	-8.5
227	0001 1101	3506.88	3542.3	-0.7	-0.7	28.3	3558.3	4.0
228	0001 1100	3522.50	3574.2	-0.1	-1.1	12.0	3574.1	0.1
229	0001 1011	3538.13	3592.0	0.5	0.7	17.7	3589.9	2.0
230	0001 1010	3553.75	3601.3	-0.1	-0.1	9.3	3605.8	-4.5
231	0001 1001	3569.38	3629.7	-0.7	0.0	28.4	3621.6	8.1
232	0001 1000	3585.00	3634.4	-1.1	-1.0	4.6	3637.5	-3.1
233	0001 0111	3600.63	3653.5	0.1	-0.6	19.1	3653.3	0.2
234	0001 0110	3616.25	3665.6	0.4	0.4	12.1	3669.2	-3.6
235	0001 0101	3631.88	3690.2	-0.1	0.8	24.6	3665.0	5.2
236	0001 0100	3647.50	3705.7	-0.3	-0.1	15.5	3700.9	4.8

ORIGINAL PAGE IS
OF POOR QUALITY

HS-235 THERMATIC MAPPER MUX UNIT TEST MODEL.. FL 1. S/N 3 PAGE 227

1981/11/30 11:39:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TEST 11-11 AND THERE SHOULD TEST (FAND= 1. SENSOR=1.4)

HAC
TFST
S27

THIS SHOULD NUMBER	AND OUTPUT THIS SHOULD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			LEVELS RATIO- NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3721.8	-0.7	-0.6	16.1	3716.7	5.1
238	0001 0010	3678.75	3734.0	-0.3	0.0	12.1	3732.6	1.4
239	0001 0001	3694.38	3757.7	0.4	0.6	23.7	3748.4	9.3
240	0001 0000	3710.00	3772.4	-0.0	0.5	14.7	3764.2	8.2
241	0000 1111	3725.63	3781.1	-0.4	-0.3	8.7	3780.1	1.0
242	0000 1110	3741.25	3792.0	-0.1	-1.1	10.9	3795.9	-3.9
243	0000 1101	3756.88	3818.4	0.5	0.8	26.4	3811.8	6.6
244	0000 1100	3772.50	3832.6	0.2	0.3	14.2	3827.6	5.0
245	0000 1011	3788.13	3849.5	-0.7	0.0	16.9	3843.5	6.0
246	0000 1010	3803.75	3872.4	0.1	0.1	9.9	3859.3	0.1
247	0000 1001	3819.38	3886.9	-0.2	-0.9	27.4	3875.2	11.7
248	0000 1000	3835.00	3894.6	1.0	1.0	7.7	3891.0	3.6
249	0000 0111	3850.63	3910.0	-0.1	0.6	15.4	3906.8	3.2
250	0000 0110	3866.25	3924.1	-0.8	-0.8	14.0	3922.7	1.4
251	0000 0101	3881.88	3948.2	-0.9	-0.8	24.1	3938.5	9.6
252	0000 0100	3897.50	3966.6	0.0	0.0	18.4	3954.4	12.2
253	0000 0011	3913.13	3978.6	0.5	0.6	12.0	3970.2	8.4
254	0000 0010	3928.75	3992.6	-0.0	0.0	14.0	3986.1	6.5
255	0000 0001	3944.38	4015.9	-1.0	-1.0	23.3	4001.9	14.0

ORIGINAL PAGE IS
OF POOR QUALITY

HS-236 THERMATIC MATTER MIX UNIT TEST MODEL.. FLI. S/N 3 PAGE 223

1981/11/30 11:40:04 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TEST THRESHOLD TEST CHAND= 1, SENSOR=1.7
1 0 0 0 0 0 0 0



NOV 30 '81

COEFF 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 = THRH INC = 31.2)
THE FOLLOWING DATA ARE FOR INFORMATION ONLY

DEVIATION OF SLOPE FROM IDEAL IS: 1.200% Y = -15.813X -35.9MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.200%

OFFSET IS: -35.9MV

COEFFICIENT OF DETERMINATION IS: R**2= .99998060

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.200% RTHRM: RMS ERROR = 7.812MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.200%

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
29.1MV	179	15.890MV	1.1MV	200	6.102MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.200% RTHRM: RMS ERROR = 7.812MV

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
2.2MV	171	-0.037MV	-1.4MV	3	1370MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.200% RTHRM: RMS ERROR = 7.812MV

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
0.7MV	171	-0.040MV	-2.2MV	175	356MV

TEST PASSED

ORIGINAL PAGE IS
OF POOR QUALITY

HS-235 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 229
 1981/11/30 11:40:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.11.14.5-13 AND THRESHOLD TEST (RANGE 1, SENSOR=15)



EX 30 31

THRESHOLD AND OUTPUT		TDEAI	ANALOG INPUT VOLTAGE (MV)			INCREASE	BEST FIT STRAIGHT LINE	
NUMBER	THRESHOLD	VALUE	NOMINAL	LOWER	UPPER	FROM PREV	POINT	DEVIATION

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111	1111	-24.375	-25.6	-0.2	0.5	-20.0	-0.5
2	1111	1110	-8.750	-15.6	-0.0	0.1	-4.2	-11.4
3	1111	1101	6.875	11.9	-1.4	-1.0	11.6	0.3
4	1111	1100	22.500	23.7	-0.4	-0.4	27.4	-3.7
5	1111	1011	38.125	41.6	0.4	0.0	43.2	-1.6
6	1111	1010	53.750	54.2	0.1	0.1	59.0	-9.9
7	1111	1001	69.375	77.6	-0.4	0.0	74.8	2.7
8	1111	1000	85.000	83.0	-0.1	-0.2	90.6	-7.6
9	1111	0111	100.625	102.9	-0.1	-0.3	106.5	-3.5
10	1111	0110	116.250	114.4	0.2	0.2	122.3	-7.8
11	1111	0101	131.875	138.3	0.3	0.3	138.1	0.2
12	1111	0100	147.500	155.9	-0.1	0.0	153.9	1.0
13	1111	0011	163.125	169.9	-0.7	-0.6	169.7	0.2
14	1111	0010	178.750	184.9	0.1	-0.1	185.5	-0.6
15	1111	0001	194.375	205.4	0.3	0.3	201.3	4.0
16	1111	0000	210.000	215.0	-0.0	0.3	217.1	-2.2
17	1110	1111	225.625	230.2	-0.5	-0.5	233.0	-2.7
18	1110	1110	241.250	240.1	-0.2	-0.2	248.8	-8.6
19	1110	1101	256.875	265.7	0.3	-0.0	264.6	1.1
20	1110	1100	272.500	281.6	0.4	0.5	280.4	1.2
21	1110	1011	288.125	297.2	-0.5	0.0	296.2	1.0
22	1110	1010	303.750	310.1	-0.2	-0.2	312.0	-1.9
23	1110	1001	319.375	332.6	-0.0	-0.3	327.8	4.8
24	1110	1000	335.000	341.5	0.2	0.2	343.6	-2.1
25	1110	0111	350.625	357.6	0.3	0.3	359.5	-1.8

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OF POOR QUALITY

PS-236 IN-MATION METER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 230

1981/11/30 11:40:18 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

3277-12-11-11 0/0 THRESHOLD 1 TEST CHAND= 1 SENSOR=15

HAC
TEST
S27

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TOTAL VALUE (V)	ANALOG INPUT VOLTAGE (V)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	370.1	-0.2	-0.0	12.4	375.3	-5.2
27	1110 0101	381.875	393.7	-0.6	-0.5	23.6	391.1	2.6
28	1110 0100	397.500	412.6	0.4	0.0	18.9	406.9	5.7
29	1110 0011	413.125	424.4	0.5	0.4	11.8	422.7	1.6
30	1110 0010	428.750	440.4	-0.1	0.2	16.0	438.5	1.9
31	1110 0001	444.375	460.6	-0.5	-0.4	20.2	454.3	6.2
32	1110 0000	460.000	465.1	-0.4	-0.3	4.5	470.1	-5.1
33	1101 1111	475.625	484.3	0.3	0.0	19.2	486.0	-1.7
34	1101 1110	491.250	493.6	0.1	0.2	9.3	501.8	-8.2
35	1101 1101	506.875	520.6	-0.6	-0.0	27.0	517.6	3.0
36	1101 1100	522.500	533.7	-0.6	-0.5	13.1	533.4	0.3
37	1101 1011	538.125	551.6	-0.1	-0.4	17.9	549.2	2.4
38	1101 1010	553.750	562.9	0.2	0.3	11.3	565.0	-2.2
39	1101 1001	569.375	586.6	0.3	0.3	27.7	580.8	5.8
40	1101 1000	585.000	595.2	-0.4	0.0	8.6	596.6	-1.4
41	1101 0111	600.625	612.2	-0.5	-0.4	17.0	612.5	-0.3
42	1101 0110	616.250	623.0	0.2	-0.0	10.8	628.3	-5.2
43	1101 0101	631.875	647.2	0.5	0.5	24.1	644.1	3.1
44	1101 0100	647.500	663.6	-0.1	0.5	16.4	659.9	3.7
45	1101 0011	663.125	670.9	-0.5	-0.5	15.3	675.7	3.2
46	1101 0010	678.750	693.3	-0.3	-0.3	14.3	691.5	1.8
47	1101 0001	694.375	713.7	0.4	0.0	20.4	707.3	6.3
48	1101 0000	710.000	727.3	0.4	0.4	13.4	723.2	4.2
49	1100 1111	725.625	738.7	-0.5	-0.0	11.4	739.0	-0.2
50	1100 1110	741.250	748.0	-0.2	-0.2	9.3	754.8	-6.8
51	1100 1101	756.875	774.4	-0.1	-0.3	24.2	770.6	3.8

ORIGINAL PAGE IS
OF POOR QUALITY

HS-216 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 231

1981/11/30 11:40:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-0-3-7-B A/D THRESHOLD TEST (BAND= 1, SENSOR=15)

HAC
TEST
S27

IN 30 71

THRESHOLD NUMBER	A/D THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	790.0	0.1	0.1	15.6	786.4	3.6
53	1100 1011	788.125	804.8	0.4	0.4	14.8	802.2	2.6
54	1100 1010	803.750	817.5	-0.4	-0.0	12.7	818.0	-0.6
55	1100 1001	819.375	840.5	-0.6	-0.5	23.0	833.8	6.7
56	1100 1000	835.000	852.2	0.2	0.0	11.6	849.7	2.5
57	1100 0111	850.625	864.9	0.5	0.6	12.8	865.5	-0.5
58	1100 0110	866.250	876.6	-0.0	0.2	11.7	881.3	-4.6
59	1100 0101	881.875	900.9	-0.5	-0.5	24.2	897.1	3.8
60	1100 0100	897.500	920.3	-0.5	-0.5	19.5	912.9	7.4
61	1100 0011	913.125	931.3	0.2	-0.0	10.9	928.7	2.5
62	1100 0010	928.750	946.6	0.1	0.1	15.3	944.5	2.0
63	1100 0001	944.375	966.9	-0.4	0.0	20.3	960.3	6.5
64	1100 0000	960.000	980.2	-0.5	-0.5	19.3	976.2	4.0
65	1011 1111	975.625	994.5	-0.0	-0.5	14.3	992.0	2.6
66	1011 1110	991.250	1005.1	0.2	0.3	10.6	1007.8	-2.6
67	1011 1101	1006.88	1030.8	0.4	0.5	25.7	1023.6	7.2
68	1011 1100	1022.50	1042.0	-0.5	0.0	11.2	1039.4	2.6
69	1011 1011	1038.13	1061.2	-0.3	-0.4	19.2	1055.2	5.9
70	1011 1010	1053.75	1071.5	0.2	0.0	10.3	1071.0	0.4
71	1011 1001	1069.38	1095.4	0.4	0.4	23.9	1086.8	8.5
72	1011 1000	1085.00	1100.4	-0.0	0.3	5.0	1102.7	-2.2
73	1011 0111	1100.63	1120.9	0.0	-0.1	20.4	1118.5	2.4
74	1011 0110	1116.25	1131.3	-0.3	-0.3	10.5	1134.3	-2.9
75	1011 0101	1131.88	1155.7	0.3	-0.1	24.4	1150.1	5.6
76	1011 0100	1147.50	1172.4	0.4	0.6	16.7	1165.9	6.5
77	1011 0011	1163.13	1187.6	-0.3	-0.1	15.2	1181.7	5.9
78	1011 0010	1178.75	1201.5	0.0	-0.1	13.9	1197.5	4.0

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HS-256 THERMAL MAPPING UNIT TEST MODEL .. FLT. S/N 3 PAGE 232
 1981/11/30 11:40:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.14.13.5--B A/D THRESHOLD TEST (RAND= 1, SENSOR=15)

HAC
TFST
S27

REV 30 81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION			
79	1011 0001	1194.38	1222.3	-0.0	-0.5	20.8	1213.3	9.0
80	1011 0000	1210.00	1234.4	0.4	0.4	12.1	1229.2	5.3
81	1010 1111	1225.63	1246.4	0.4	0.4	12.0	1245.0	1.5
82	1010 1110	1241.25	1258.1	-0.1	0.0	11.6	1260.8	-2.7
83	1010 1101	1256.88	1283.6	-0.4	-2.0	25.5	1276.6	7.0
84	1010 1100	1272.50	1296.9	0.4	0.0	13.3	1292.4	4.5
85	1010 1011	1288.13	1313.0	0.4	0.5	16.0	1308.2	4.8
86	1010 1010	1303.75	1324.6	0.0	0.4	11.6	1324.0	0.6
87	1010 1001	1319.38	1347.9	-0.4	-0.3	23.2	1339.8	8.0
88	1010 1000	1335.00	1356.4	-0.1	-0.3	8.5	1355.7	0.8
89	1010 0111	1350.63	1372.8	0.3	-0.0	16.4	1371.5	1.3
90	1010 0110	1366.25	1383.3	0.5	0.4	10.4	1387.3	-4.0
91	1010 0101	1381.88	1408.2	-0.4	-0.1	24.9	1403.1	5.1
92	1010 0100	1397.50	1426.7	-0.5	-0.4	18.5	1418.9	7.8
93	1010 0011	1413.13	1439.5	0.0	-0.2	12.8	1434.7	4.8
94	1010 0010	1428.75	1457.8	0.2	0.3	14.2	1450.5	3.2
95	1010 0001	1444.38	1473.8	0.2	0.1	20.1	1466.3	7.5
96	1010 0000	1460.00	1482.7	-0.1	-0.1	8.8	1482.2	0.5
97	1001 1111	1475.63	1498.1	-0.1	-0.2	15.4	1493.0	0.1
98	1001 1110	1491.25	1508.1	0.5	0.0	10.0	1513.8	-5.7
99	1001 1101	1506.88	1534.4	0.6	0.6	26.3	1529.6	4.8
100	1001 1100	1522.50	1545.4	0.0	0.4	10.9	1545.4	-0.0
101	1001 1011	1538.13	1564.4	0.0	-0.1	19.0	1561.2	3.2
102	1001 1010	1553.75	1574.8	-0.1	-0.1	10.4	1577.0	-2.2
103	1001 1001	1569.38	1598.9	0.7	0.0	24.1	1592.8	6.1
104	1001 1000	1585.00	1607.0	-0.0	0.0	8.1	1608.7	-1.6

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HS 236 THEMATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 233

1981/11/30 11:40:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.4.5-B AND THRESHOLD TEST (RAND= 1, SENSOR=15)

NOV 30 1981
527

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1 : 1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
105 1001 0111	1600.63	1624.7 -0.5 0.0	17.7	1624.5 0.3
106 1001 0110	1616.25	1634.4 -0.1 -0.1	9.6	1640.3 -15.9
107 1001 0101	1631.88	1659.7 -0.0 -0.3	25.3	1656.1 3.6
108 1001 0100	1647.50	1676.3 0.3 0.4	16.6	1671.9 4.4
109 1001 0011	1663.12	1690.7 0.5 0.6	14.4	1687.7 3.0
110 1001 0010	1678.75	1704.9 -0.2 0.0	14.1	1703.5 1.3
111 1001 0001	1694.38	1725.5 -0.4 0.2	20.7	1719.3 6.3
112 1001 0000	1710.50	1741.6 0.5 0.0	16.0	1735.2 6.4
113 1000 1111	1725.63	1749.9 0.0 0.0	8.4	1751.0 -1.0
114 1000 1110	1741.25	1758.3 -0.0 0.1	8.4	1766.8 -8.5
115 1000 1101	1756.88	1786.9 -0.5 -0.5	28.6	1782.6 4.3
116 1000 1100	1772.50	1800.6 -0.4 -0.3	13.6	1798.4 2.2
117 1000 1011	1788.13	1816.3 0.3 -0.0	15.7	1814.2 2.1
118 1000 1010	1803.75	1827.8 0.2 0.1	11.5	1830.0 -2.2
119 1000 1001	1819.38	1851.5 -0.6 -0.1	23.7	1845.8 5.7
120 1000 1000	1835.00	1863.0 -0.0 0.0	11.4	1861.7 1.3
121 1000 0111	1850.63	1876.3 0.1 -0.2	13.3	1877.5 -1.2
122 1000 0110	1866.25	1886.3 0.0 0.1	10.0	1893.3 -6.9
123 1000 0101	1881.88	1911.4 1.1 0.2	25.1	1909.1 2.3
124 1000 0100	1897.50	1930.0 -0.4 0.0	18.6	1924.9 5.1
125 1000 0011	1913.13	1942.8 -0.3 -0.3	12.8	1940.7 2.1
126 1000 0010	1928.75	1957.1 0.3 -0.1	14.2	1956.5 0.5
127 1000 0001	1944.38	1977.0 0.4 0.3	19.9	1972.3 4.7
128 1000 0000	1960.00	1986.1 -0.0 0.1	9.1	1988.2 -2.0
129 0111 1111	1975.63	1999.8 -0.3 -0.5	13.7	2004.0 -4.2
130 0111 1110	1991.25	2011.1 -0.2 -0.2	11.3	2019.8 -8.7

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HS-22A THERMATIC MAFER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 234

1981/11/30 11:40:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

FLYING-15-8 AND THRESHOLD TEST (RAND= 4, SENSOR=15)

100
70.5
527

THIS SET OF A/D OUTPUT NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (KV)	ANALOG INPUT VOLTAGE (KV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2036.2	0.3	-0.0	25.1	2035.6	0.6
132	0111 1100	2022.50	2048.6	0.0	-0.2	12.3	2051.4	-2.8
133	0111 1011	2036.13	2066.8	-0.4	0.0	18.3	2067.2	-0.4
134	0111 1010	2053.75	2077.9	-0.1	-0.2	11.0	2083.0	-5.1
135	0111 1001	2069.38	2102.7	-0.1	-2.2	24.8	2098.8	3.8
136	0111 1000	2085.00	2105.1	-0.0	-6.0	2.5	2114.7	-9.6
137	0111 0111	2100.63	2126.4	0.4	0.1	21.3	2130.5	-4.0
138	0111 0110	2116.25	2136.4	-0.1	0.0	10.0	2146.3	-9.8
139	0111 0101	2131.88	2163.0	-0.4	-0.4	26.6	2162.1	0.9
140	0111 0100	2147.50	2179.3	0.2	-0.0	16.3	2177.9	1.4
141	0111 0011	2163.13	2193.0	0.2	0.1	13.7	2193.7	-0.7
142	0111 0010	2178.75	2208.1	-0.0	0.1	15.1	2209.5	-1.4
143	0111 0001	2194.38	2227.8	-0.2	-0.4	19.7	2225.3	2.4
144	0111 0000	2210.00	2237.9	-0.6	-0.6	10.1	2241.2	-3.2
145	0110 1111	2225.63	2251.9	0.2	-0.0	13.9	2257.0	-5.1
146	0110 1110	2241.25	2260.4	-0.0	0.0	8.5	2272.8	-12.4
147	0110 1101	2256.88	2288.7	-0.1	0.0	28.3	2288.6	0.1
148	0110 1100	2272.50	2304.0	-0.4	-0.3	15.3	2304.4	-0.4
149	0110 1011	2288.13	2318.9	-0.0	-0.3	14.9	2320.2	-1.3
150	0110 1010	2303.75	2330.9	0.0	0.7	11.9	2336.0	-5.2
151	0110 1001	2319.38	2352.7	2.2	0.3	21.8	2351.8	0.8
152	0110 1000	2335.00	2361.2	-0.1	0.0	8.6	2367.7	-6.4
153	0110 0111	2350.63	2378.9	-0.4	-0.4	17.7	2383.5	-4.5
154	0110 0110	2366.25	2388.7	0.1	-0.1	9.8	2399.3	-10.5
155	0110 0101	2381.88	2414.8	0.3	0.3	26.0	2415.1	-0.3
156	0110 0100	2397.50	2432.7	0.0	0.3	17.9	2430.9	1.8
157	0110 0011	2413.13	2445.4	-0.4	-0.4	12.7	2446.7	-1.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 235

1981/11/10 11:40:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-5-7-9-11-13-15-17-19-21-23-25-27-29-31-33-35-37-39-41-43-45-47-49-51-53-55-57-59-61-63-65-67-69-71-73-75-77-79-81-83-85-87-89-91-93-95-97-99-101-103-105-107-109-111-113-115-117-119-121-123-125-127-129-131-133-135-137-139-141-143-145-147-149-151-153-155-157-159-161-163-165-167-169-171-173-175-177-179-181-183-185-187-189-191-193-195-197-199-201-203-205-207-209-211-213-215-217-219-221-223-225-227-229-231-233-235-237-239-241-243-245-247-249-251-253-255-257-259-261-263-265-267-269-271-273-275-277-279-281-283-285-287-289-291-293-295-297-299-301-303-305-307-309-311-313-315-317-319-321-323-325-327-329-331-333-335-337-339-341-343-345-347-349-351-353-355-357-359-361-363-365-367-369-371-373-375-377-379-381-383-385-387-389-391-393-395-397-399-401-403-405-407-409-411-413-415-417-419-421-423-425-427-429-431-433-435-437-439-441-443-445-447-449-451-453-455-457-459-461-463-465-467-469-471-473-475-477-479-481-483-485-487-489-491-493-495-497-499-501-503-505-507-509-511-513-515-517-519-521-523-525-527-529-531-533-535-537-539-541-543-545-547-549-551-553-555-557-559-561-563-565-567-569-571-573-575-577-579-581-583-585-587-589-591-593-595-597-599-601-603-605-607-609-611-613-615-617-619-621-623-625-627-629-631-633-635-637-639-641-643-645-647-649-651-653-655-657-659-661-663-665-667-669-671-673-675-677-679-681-683-685-687-689-691-693-695-697-699-701-703-705-707-709-711-713-715-717-719-721-723-725-727-729-731-733-735-737-739-741-743-745-747-749-751-753-755-757-759-761-763-765-767-769-771-773-775-777-779-781-783-785-787-789-791-793-795-797-799-801-803-805-807-809-811-813-815-817-819-821-823-825-827-829-831-833-835-837-839-841-843-845-847-849-851-853-855-857-859-861-863-865-867-869-871-873-875-877-879-881-883-885-887-889-891-893-895-897-899-901-903-905-907-909-911-913-915-917-919-921-923-925-927-929-931-933-935-937-939-941-943-945-947-949-951-953-955-957-959-961-963-965-967-969-971-973-975-977-979-981-983-985-987-989-991-993-995-997-999-1001-1003-1005-1007-1009-1011-1013-1015-1017-1019-1021-1023-1025-1027-1029-1031-1033-1035-1037-1039-1041-1043-1045-1047-1049-1051-1053-1055-1057-1059-1061-1063-1065-1067-1069-1071-1073-1075-1077-1079-1081-1083-1085-1087-1089-1091-1093-1095-1097-1099-1101-1103-1105-1107-1109-1111-1113-1115-1117-1119-1121-1123-1125-1127-1129-1131-1133-1135-1137-1139-1141-1143-1145-1147-1149-1151-1153-1155-1157-1159-1161-1163-1165-1167-1169-1171-1173-1175-1177-1179-1181-1183-1185-1187-1189-1191-1193-1195-1197-1199-1201-1203-1205-1207-1209-1211-1213-1215-1217-1219-1221-1223-1225-1227-1229-1231-1233-1235-1237-1239-1241-1243-1245-1247-1249-1251-1253-1255-1257-1259-1261-1263-1265-1267-1269-1271-1273-1275-1277-1279-1281-1283-1285-1287-1289-1291-1293-1295-1297-1299-1301-1303-1305-1307-1309-1311-1313-1315-1317-1319-1321-1323-1325-1327-1329-1331-1333-1335-1337-1339-1341-1343-1345-1347-1349-1351-1353-1355-1357-1359-1361-1363-1365-1367-1369-1371-1373-1375-1377-1379-1381-1383-1385-1387-1389-1391-1393-1395-1397-1399-1401-1403-1405-1407-1409-1411-1413-1415-1417-1419-1421-1423-1425-1427-1429-1431-1433-1435-1437-1439-1441-1443-1445-1447-1449-1451-1453-1455-1457-1459-1461-1463-1465-1467-1469-1471-1473-1475-1477-1479-1481-1483-1485-1487-1489-1491-1493-1495-1497-1499-1501-1503-1505-1507-1509-1511-1513-1515-1517-1519-1521-1523-1525-1527-1529-1531-1533-1535-1537-1539-1541-1543-1545-1547-1549-1551-1553-1555-1557-1559-1561-1563-1565-1567-1569-1571-1573-1575-1577-1579-1581-1583-1585-1587-1589-1591-1593-1595-1597-1599-1601-1603-1605-1607-1609-1611-1613-1615-1617-1619-1621-1623-1625-1627-1629-1631-1633-1635-1637-1639-1641-1643-1645-1647-1649-1651-1653-1655-1657-1659-1661-1663-1665-1667-1669-1671-1673-1675-1677-1679-1681-1683-1685-1687-1689-1691-1693-1695-1697-1699-1701-1703-1705-1707-1709-1711-1713-1715-1717-1719-1721-1723-1725-1727-1729-1731-1733-1735-1737-1739-1741-1743-1745-1747-1749-1751-1753-1755-1757-1759-1761-1763-1765-1767-1769-1771-1773-1775-1777-1779-1781-1783-1785-1787-1789-1791-1793-1795-1797-1799-1801-1803-1805-1807-1809-1811-1813-1815-1817-1819-1821-1823-1825-1827-1829-1831-1833-1835-1837-1839-1841-1843-1845-1847-1849-1851-1853-1855-1857-1859-1861-1863-1865-1867-1869-1871-1873-1875-1877-1879-1881-1883-1885-1887-1889-1891-1893-1895-1897-1899-1901-1903-1905-1907-1909-1911-1913-1915-1917-1919-1921-1923-1925-1927-1929-1931-1933-1935-1937-1939-1941-1943-1945-1947-1949-1951-1953-1955-1957-1959-1961-1963-1965-1967-1969-1971-1973-1975-1977-1979-1981-1983-1985-1987-1989-1991-1993-1995-1997-1999-2001-2003-2005-2007-2009-2011-2013-2015-2017-2019-2021-2023-2025-2027-2029-2031-2033-2035-2037-2039-2041-2043-2045-2047-2049-2051-2053-2055-2057-2059-2061-2063-2065-2067-2069-2071-2073-2075-2077-2079-2081-2083-2085-2087-2089-2091-2093-2095-2097-2099-2101-2103-2105-2107-2109-2111-2113-2115-2117-2119-2121-2123-2125-2127-2129-2131-2133-2135-2137-2139-2141-2143-2145-2147-2149-2151-2153-2155-2157-2159-2161-2163-2165-2167-2169-2171-2173-2175-2177-2179-2181-2183-2185-2187-2189-2191-2193-2195-2197-2199-2201-2203-2205-2207-2209-2211-2213-2215-2217-2219-2221-22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HS-214 THERMATIC WATER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 236
 1981/11/30 11:40:18 PURITY FULL PERFORMANCE @ AMBIENT TEMP.
 TEST CHANNEL= 17 SENSOR=15

HAC
 TEST
 S27

THRESHOLD A/D OUTPUT NOMINAL THRESHOLD	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
187	0100 1000	2875.00 2868.3 -0.1 0.1 9.2	2873.7 -5.4
188	0100 0111	2870.63 2883.1 -0.4 -0.4 14.8	2869.5 -6.4
189	0100 0110	2866.25 2892.6 -0.2 -0.2 9.5	2905.3 -12.7
190	0100 0101	2881.88 2919.0 0.5 -0.0 26.5	2921.1 -2.1
191	0100 0100	2877.50 2937.1 0.5 1.6 18.0	2936.9 0.2
192	0100 0011	2913.13 2949.8 -0.3 0.0 12.7	2952.7 -2.9
193	0100 0010	2918.75 2965.4 -0.0 -0.0 15.5	2958.5 -3.1
194	0100 0001	2944.38 2985.6 -0.1 -0.1 20.2	2984.3 1.3
195	0100 0000	2960.00 3000.0 0.3 0.4 14.3	3000.2 -0.2
196	0011 1111	2975.63 3011.3 0.2 0.3 11.4	3016.0 -4.6
197	0011 1110	2991.25 3021.8 -0.2 -0.0 10.5	3031.8 -10.0
198	0011 1101	3006.88 3048.7 -0.2 -0.1 24.9	3047.6 1.2
199	0011 1100	3022.50 3059.3 1.6 -0.0 10.6	3063.4 -4.1
200	0011 1011	3038.13 3079.2 -0.1 0.0 19.8	3079.2 -0.0
201	0011 1010	3053.75 3088.8 0.0 0.1 9.7	3095.0 -6.2
202	0011 1001	3069.38 3115.5 -0.3 -0.3 24.6	3110.8 4.6
203	0011 1000	3085.00 3116.6 -0.1 -0.1 1.1	3126.7 -10.0
204	0011 0111	3100.63 3139.0 0.1 0.0 22.4	3142.5 -3.5
205	0011 0110	3116.25 3148.1 -0.2 0.1 9.1	3158.3 -10.2
206	0011 0101	3131.88 3176.0 -0.4 -0.0 27.9	3174.1 1.9
207	0011 0100	3147.50 3191.6 -0.4 -0.4 13.6	3189.9 1.7
208	0011 0011	3163.13 3206.2 0.0 0.0 14.6	3205.7 0.5
209	0011 0010	3178.75 3220.2 0.1 0.2 14.0	3221.5 -1.4
210	0011 0001	3194.38 3242.4 0.0 0.0 22.2	3237.3 5.1
211	0011 0000	3210.00 3253.8 -0.1 -0.0 11.4	3253.2 0.6
212	00 0 1111	3225.63 3265.6 -0.2 -0.2 11.8	3269.0 -3.4

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HS-7016 THERMATIC MAPPER MIX UNIT TEST MODEL.. HIT. S/N 3 PAGE 237
 1981/11/30 11:40:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-7-8-4-7-4 A/D THRESHOLD TEST (RAND= 1, SENSOR=1.5)



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3276.3	0.1	0.0	10.7	3284.8	-8.5
211	0010 1101	3256.88	3302.7	0.3	0.3	26.4	3300.6	2.1
212	0010 1100	3272.50	3316.8	-0.1	0.4	14.1	3316.4	0.4
213	0010 1011	3288.13	3333.3	-0.0	-0.0	14.5	3332.2	1.0
214	0010 1010	3303.75	3344.6	-0.2	-0.1	11.3	3348.0	-3.4
215	0010 1001	3319.38	3369.6	0.0	-0.0	20.0	3363.8	5.7
216	0010 1000	3335.00	3375.0	-0.1	-0.2	5.4	3379.7	-4.7
217	0010 0111	3350.63	3393.8	-0.4	-0.0	18.8	3395.5	-1.7
218	0010 0110	3366.25	3402.9	-0.0	0.0	9.0	3411.3	-8.4
219	0010 0101	3381.88	3430.6	-0.5	-0.5	27.7	3427.1	3.5
220	0010 0100	3397.50	3449.6	0.3	0.3	18.9	3442.9	6.6
221	0010 0011	3413.13	3461.0	0.3	0.2	11.5	3458.7	2.3
222	0010 0010	3428.75	3476.5	-0.1	-0.0	15.4	3474.5	1.9
223	0010 0001	3444.38	3497.6	-0.9	-0.6	21.1	3490.3	7.2
224	0010 0000	3460.00	3505.4	0.2	-0.7	7.8	3506.2	-0.8
225	0001 1111	3475.63	3519.9	0.0	0.0	14.5	3522.0	-2.1
226	0001 1110	3491.25	3529.6	-0.1	0.0	9.7	3537.8	-8.2
227	0001 1101	3506.88	3557.7	-0.8	-0.8	28.1	3553.6	4.1
228	0001 1100	3522.50	3568.7	-0.4	-0.4	11.0	3569.4	-0.7
229	0001 1011	3538.13	3587.8	0.1	-0.2	19.1	3585.2	2.6
230	0001 1010	3553.75	3597.5	-0.1	-0.2	9.7	3601.0	-3.5
231	0001 1001	3569.38	3624.9	-0.1	-0.1	27.3	3616.8	8.0
232	0001 1000	3585.00	3629.2	0.1	0.1	4.3	3632.7	-3.5
233	0001 0111	3600.63	3648.7	-0.2	-0.2	19.5	3648.5	0.2
234	0001 0110	3616.25	3657.2	-0.2	0.0	8.5	3664.3	-7.1
235	0001 0101	3631.88	3685.7	0.1	0.2	28.5	3680.1	5.6
236	0001 0100	3647.50	3701.9	-0.4	0.1	16.1	3695.9	5.9

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THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	DIGITAL VALUE (V)	ANALOG INPUT VOLTAGE (X0)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
232	0001 0011	3493.13	3716.5	0.0	0.0	14.6	3711.7	4.8
238	0001 0010	3478.75	3710.2	0.4	0.0	13.7	3727.5	2.6
235	0001 0001	3494.38	3752.8	0.2	0.6	22.7	3743.3	9.5
240	0001 0000	3710.00	3767.9	0.0	0.0	15.1	3759.2	8.8
241	0000 1111	3725.63	3776.3	-0.3	-0.3	8.3	3775.0	1.3
242	0000 1110	3741.25	3786.6	-0.2	-0.1	10.3	3790.8	-4.2
243	0000 1101	3756.88	3813.8	-0.1	0.0	27.2	3806.6	7.2
247	0000 1100	3772.50	3828.4	0.0	0.0	14.6	3822.4	6.0
245	0000 1011	3788.13	3844.5	-0.4	0.0	16.1	3838.2	6.2
244	0000 1010	3803.75	3875.4	0.0	-0.0	11.0	3854.0	1.4
246	0000 1001	3819.38	3881.4	-0.1	-0.1	26.0	3869.8	11.6
248	0000 1000	3835.00	3890.7	-0.1	0.1	9.2	3885.7	5.0
249	0000 0111	3850.63	3905.0	0.0	0.2	14.3	3901.5	3.5
250	0000 0110	3856.25	3914.1	0.0	0.0	9.1	3917.3	-3.2
251	0000 0101	3881.88	3942.3	-0.0	-0.0	28.2	3933.1	9.2
252	0000 0100	3897.50	3959.6	0.2	0.0	17.2	3948.9	10.7
253	0000 0011	3913.13	3973.6	0.0	0.1	14.0	3964.7	8.9
254	0000 0010	3928.75	3988.7	-0.3	0.0	15.1	3980.5	8.1
255	0000 0001	3944.38	4010.4	-0.5	-0.4	21.7	3996.3	14.1

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HS-276 THERMAL MAPPER BOX UNIT TEST MODEL.. FLT. S/N 3 PAGE 239
 1981/11/30 11:46:41 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
 7-11-81-4 AND THRESHOLD TEST (BAND= 1, SENSOR=16)
 SUMMARY

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CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 = THRESH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

REFIT FIT STRAIGHT LINE IS: $Y = -15.822X - 37.8MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.264%
 OFFSET IS: -37.8MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998290$
 ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.760MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM THRESHOLD #	AVERAGE	MINIMUM THRESHOLD #	STANDARD DEVIATION
22.7MV 222	15.897MV	1.2MV 200	5.452MV

DIFFER AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM THRESHOLD #	AVERAGE	MINIMUM THRESHOLD #	STANDARD DEVIATION
1.5MV 244	-0.046MV	-1.5MV 148	.314MV

DIFFER AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM THRESHOLD #	AVERAGE	MINIMUM THRESHOLD #	STANDARD DEVIATION
1.4MV 245	-0.031MV	-1.6MV 148	.299MV

TEST PASSED

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DS 236 THERMAL MAPPING AUX UNIT TEST MODEL 1, LOT, S/N 3 PAGE 240

1980 11 10 11:44:14 FINALITY FULL PERFORMANCE @ AMBIENT TEMP.

1980 11 25 11:55:11 0.1% THRESHOLD TEST (HAND-- 1.5 SENSOR--1.5)

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THRESHOLD AND OUTPUT NUMBER THRESHOLD	REFL VALUE (KV)	ANALOG INPUT VOLTAGE (KV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	POINT	DEVIATION
		NOMINAL	LOWER	UPPER	1:1			

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-28.9	-0.6	-0.1		-22.0	-6.9
2	1111 1110	-6.750	-16.2	0.1	0.0	12.7	-6.2	-10.1
3	1111 1101	6.875	7.7	-0.0	0.0	23.2	9.6	-1.9
4	1111 1100	22.500	21.2	-0.3	-0.1	13.5	25.5	4.3
5	1111 1011	38.125	38.4	-0.3	0.0	17.3	41.3	-2.8
6	1111 1010	53.750	51.2	-0.0	-0.0	12.8	57.1	-5.9
7	1111 1001	69.375	74.3	-0.1	-0.3	23.0	72.9	1.3
8	1111 1000	85.000	80.2	0.1	0.1	6.0	88.7	-8.5
9	1111 0111	100.625	99.3	0.2	0.3	19.0	104.6	-5.3
10	1111 0110	116.250	114.6	-0.3	-0.2	15.3	120.4	-5.8
11	1111 0101	131.875	131.2	-0.3	-0.3	20.6	136.2	-1.0
12	1111 0100	147.500	152.8	-0.0	-0.0	17.6	152.0	0.7
13	1111 0011	163.125	166.3	0.1	0.2	13.5	167.9	-1.6
14	1111 0010	178.750	182.6	-0.1	-0.1	16.3	183.7	-1.1
15	1111 0001	194.375	202.3	-0.3	-0.2	19.7	199.5	2.8
16	1111 0000	210.000	212.9	0.2	0.2	10.6	215.3	-2.4
17	1110 1111	225.625	226.7	0.2	0.2	13.8	231.2	-4.4
18	1110 1110	241.250	240.2	-0.1	0.0	13.5	247.0	-5.8
19	1110 1101	256.875	262.9	0.4	-0.1	22.7	262.8	0.1
20	1110 1100	272.500	279.4	0.1	0.0	16.5	278.6	0.8
21	1110 1011	288.125	294.2	-0.1	-0.3	14.7	294.4	-0.2
22	1110 1010	303.750	307.7	-0.0	-0.0	13.5	310.3	-2.6
23	1110 1001	319.375	329.6	0.2	0.3	21.9	326.1	3.5
24	1110 1000	335.000	341.8	-1.4	-0.2	12.3	341.9	-0.1
25	1110 0111	350.625	351.2	-0.5	-0.5	13.3	357.2	-2.6

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HS-226 THERMATIC METER MUX UNIT TEST MODEL.. FIT. S/N 3 PAGE 241

1981/11/30 11:46:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

RELATIVE HUMIDITY AND THRESHOLD TEST (COND= 1, SENSOR=16)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	370.1	0.2	0.1	373.6	-3.4
27	1110 0101	381.875	390.5	0.1	0.1	389.4	1.1
28	1110 0100	397.500	411.8	-0.1	0.0	405.2	6.6
29	1110 0011	413.125	422.0	-0.3	-0.3	421.0	1.0
30	1110 0010	428.750	438.5	-0.0	-0.1	436.8	1.7
31	1110 0001	444.375	457.5	0.1	0.2	452.7	4.9
32	1110 0000	460.000	462.7	0.2	0.2	468.5	-5.8
33	1101 1111	475.625	481.8	-0.3	-0.0	484.3	-2.5
34	1101 1110	491.250	494.0	-0.0	-0.0	500.1	-6.2
35	1101 1101	506.875	518.7	-0.2	-0.3	516.0	2.7
36	1101 1100	522.500	531.4	-0.1	0.0	531.8	-0.4
37	1101 1011	538.125	548.0	0.2	0.3	547.6	1.2
38	1101 1010	553.750	560.8	0.0	0.1	563.4	-2.6
39	1101 1001	569.375	584.5	-0.4	-0.4	579.2	5.2
40	1101 1000	585.000	592.8	0.2	-0.0	595.1	-2.3
41	1101 0111	600.625	609.5	0.2	0.3	610.9	-1.4
42	1101 0110	616.250	624.4	-0.1	-0.1	626.7	-2.3
43	1101 0101	631.875	645.2	-0.1	-0.1	642.5	2.7
44	1101 0100	647.500	663.2	-0.1	-0.0	658.4	4.9
45	1101 0011	663.125	676.4	0.2	0.2	674.2	2.2
46	1101 0010	678.750	691.6	-0.0	0.0	690.0	1.6
47	1101 0001	694.375	712.1	-0.3	-0.0	705.8	6.3
48	1101 0000	710.000	726.4	0.2	0.2	721.6	4.8
49	1100 1111	725.625	736.4	-0.1	-0.2	737.5	-1.1
50	1100 1110	741.250	749.0	-0.0	-0.0	753.3	-4.2
51	1100 1101	756.875	772.7	0.1	-0.2	769.1	3.6

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H-22A THERMALIS BUFFER MIX UNIT TEST MODEL.. FIT. S/N 3 PAGE 243
 1981/11/30 1144274 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 0111111111 AND THRESHOLD TEST (RANGE 1, SENSOR=16)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		LEVELS RATIO NOMINAL LOWER UPPER	POINT	DEVIATION			
79 1011 0001	1194.38	1220.8	0.3	0.3	20.7	1212.1	8.6
80 1011 0000	1210.00	1233.6	0.1	0.0	12.8	1228.0	5.7
81 1010 1111	1225.63	1245.3	-0.4	-0.4	11.7	1243.8	1.6
82 1010 1110	1241.25	1257.1	-0.1	-0.1	11.8	1259.6	-2.5
83 1010 1101	1256.88	1281.5	0.2	0.2	24.3	1275.4	6.0
84 1010 1100	1272.50	1296.2	-0.1	0.0	14.7	1291.3	4.9
85 1010 1011	1288.13	1312.1	-0.5	-0.4	15.9	1307.1	5.0
86 1010 1010	1303.75	1323.3	0.2	0.2	11.2	1322.9	0.4
87 1010 1001	1319.38	1346.0	0.3	0.3	22.7	1338.7	7.3
88 1010 1000	1335.00	1355.8	0.1	0.1	9.7	1354.5	1.2
89 1010 0111	1350.63	1372.0	-0.3	0.0	16.2	1370.4	1.6
90 1010 0110	1366.25	1386.2	0.0	0.0	14.2	1386.2	-0.0
91 1010 0101	1381.88	1407.9	-1.4	-0.4	21.8	1402.0	5.9
92 1010 0100	1397.50	1422.0	-0.1	0.0	19.1	1417.8	9.7
93 1010 0011	1413.13	1438.1	0.3	0.3	11.1	1433.7	4.5
94 1010 0010	1428.75	1453.3	0.1	0.2	15.2	1449.5	3.8
95 1010 0001	1444.38	1473.1	-0.4	-0.4	19.8	1465.3	7.8
96 1010 0000	1460.00	1481.7	0.1	-0.0	8.6	1481.1	0.5
97 1001 1111	1475.63	1496.6	0.2	0.2	14.8	1497.0	-0.4
98 1001 1110	1491.25	1507.6	-0.1	-0.3	11.0	1512.8	-5.2
99 1001 1101	1506.88	1533.2	-0.3	-1.0	26.6	1528.6	4.6
100 1001 1100	1522.50	1544.6	0.0	0.0	11.4	1544.4	0.2
101 1001 1011	1538.13	1563.3	0.3	0.3	18.7	1560.2	3.1
102 1001 1010	1553.75	1573.5	-0.2	-0.1	18.2	1574.1	-2.6
103 1001 1001	1569.38	1594.0	-0.2	0.0	24.4	1591.9	6.1
104 1001 1000	1585.00	1607.9	-0.2	-0.3	8.0	1607.2	-1.8

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HS-236 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 245
 1981/11/30 11:46:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.14.5-13 A/D THRESHOLD TEST (RANGE= 1, SENSOR=14) P.308

THRESHOLD A/D OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
		NOMINAL	LOWER	UPPER		POINT	DEVIATION	
131	0111 1101	2006.88	2034.9	-0.3	-0.1	24.9	2034.9	0.0
132	0111 1100	2022.50	2048.3	-0.0	-0.0	13.4	2050.7	-2.4
133	0111 1011	2038.13	2065.9	-0.1	-0.1	17.5	2066.6	-0.7
134	0111 1010	2053.75	2076.7	-0.1	-0.3	19.9	2082.4	-5.7
135	0111 1001	2069.38	2101.1	0.0	0.0	24.4	2098.7	2.9
136	0111 1000	2085.00	2104.1	-0.3	-0.3	2.9	2114.0	-10.0
137	0111 0111	2130.63	2126.0	-0.3	-0.5	21.9	2129.8	-3.9
138	0111 0110	2116.25	2139.5	-0.2	-0.1	13.5	2145.7	-6.2
139	0111 0101	2131.88	2161.2	0.1	0.1	21.7	2161.5	-0.3
140	0111 0100	2147.50	2177.7	0.0	0.4	16.4	2177.3	0.4
141	0111 0011	2163.13	2192.0	-0.0	-0.1	14.3	2193.1	-1.1
142	0111 0010	2178.75	2206.6	0.3	0.1	14.6	2209.0	-2.3
143	0111 0001	2194.38	2227.5	0.2	0.2	20.8	2224.8	2.7
144	0111 0000	2210.00	2237.0	-0.1	-0.2	9.5	2240.6	-3.6
145	0110 1111	2225.63	2251.3	0.8	0.0	14.2	2256.4	-5.2
146	0110 1110	2241.25	2262.9	0.1	0.1	11.7	2272.3	-9.3
147	0110 1101	2256.88	2287.4	-0.0	-0.3	24.5	2288.1	-0.6
148	0110 1100	2272.50	2304.5	-1.5	-1.6	17.1	2303.9	0.6
149	0110 1011	2288.13	2318.1	0.0	0.1	13.5	2319.7	-1.7
150	0110 1010	2303.75	2329.9	0.1	0.2	11.8	2335.5	-5.7
151	0110 1001	2319.38	2353.7	-0.5	-0.4	23.8	2351.4	2.3
152	0110 1000	2335.00	2360.7	-0.1	-0.0	7.0	2367.2	-6.5
153	0110 0111	2350.63	2378.0	0.1	0.2	17.2	2383.0	-5.0
154	0110 0110	2366.25	2392.5	0.0	-0.4	14.5	2398.8	-6.4
155	0110 0101	2381.88	2413.7	-0.1	-0.3	21.3	2414.7	-0.9
156	0110 0100	2397.50	2434.0	-0.0	-0.0	20.2	2430.5	3.5
157	0110 0011	2413.13	2443.9	0.0	0.0	9.9	2446.3	-2.4

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THERMOPID NUMBER	A/D OUTPUT THRESHOLD	IDEAL VOLTAGE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			LEVELS RATIO= NOMINAL	LOWER	UPPER		POINT	DEVIATION
158	0110 0010	2428.75	2450.0	0.0	-0.1	16.1	2462.1	-2.1
159	0110 0001	2444.38	2479.9	-0.1	0.0	19.9	2477.9	1.9
160	0110 0000	2460.00	2484.9	-0.1	-0.6	5.0	2473.8	-8.8
161	0101 1111	2475.63	2504.6	-0.0	-0.0	19.7	2509.6	-5.0
162	0101 1110	2491.25	2513.6	-0.2	-0.3	9.0	2525.4	-11.8
163	0101 1101	2506.88	2539.0	0.3	0.1	20.3	2541.7	-2.3
164	0101 1100	2522.50	2553.3	-0.2	0.1	14.3	2557.1	-3.8
165	0101 1011	2533.13	2570.2	-0.2	-0.2	16.9	2572.9	-2.7
166	0101 1010	2543.75	2580.2	-0.3	0.0	10.0	2588.2	-8.5
167	0101 1001	2569.38	2605.3	-0.0	-0.1	25.1	2604.5	0.8
168	0101 1000	2585.00	2610.9	-0.1	-0.1	5.6	2620.3	-9.4
169	0101 0111	2600.63	2630.4	1.1	1.1	19.5	2636.2	-5.8
170	0101 0110	2616.25	2642.7	0.4	0.3	12.3	2652.0	-9.3
171	0101 0101	2631.88	2665.6	0.1	0.2	22.8	2667.8	-2.3
172	0101 0100	2647.50	2683.0	-0.2	-0.2	17.4	2687.4	-0.4
173	0101 0011	2663.13	2696.9	-0.1	-0.1	13.9	2699.5	-2.6
174	0101 0010	2678.75	2710.3	0.3	0.4	13.4	2715.3	-1.0
175	0101 0001	2694.38	2732.1	-0.1	-0.2	21.8	2731.1	1.0
176	0101 0000	2710.00	2745.5	-0.4	-0.4	13.4	2746.9	-1.4
177	0100 1111	2725.63	2757.2	0.1	0.1	11.7	2762.7	-5.5
178	0100 1110	2741.25	2766.4	0.2	0.2	9.2	2778.6	-12.2
179	0100 1101	2756.88	2791.6	-1.0	-0.0	25.2	2794.4	-2.8
180	0100 1100	2772.50	2807.7	-0.1	-0.0	16.1	2810.2	-2.5
181	0100 1011	2788.13	2822.9	0.0	-0.0	15.2	2826.0	-3.1
182	0100 1010	2803.75	2834.0	0.1	-0.5	11.1	2841.9	-2.9
183	0100 1001	2819.38	2858.1	-0.1	-0.1	24.1	2857.7	0.4

HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 247

1981/11/30 11:46:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-7-14-1-4 A/D THRESHOLD TEST (BAND- 1, SENSOR=16)



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
185	0100 1000	2825.00	2867.4	0.4	0.0	9.4	2873.5	-6.1
186	0100 0111	2850.63	2883.7	0.1	0.2	16.2	2889.3	-5.6
186	0100 0110	2844.25	2895.6	-0.0	-0.0	11.9	2905.2	-9.5
187	0100 0101	2881.88	2917.9	-0.1	-0.0	22.3	2921.0	-3.0
187	0100 0100	2897.50	2939.0	0.1	0.1	21.0	2936.8	2.2
189	0100 0011	2913.13	2949.5	0.1	-0.1	10.5	2952.6	-3.1
190	0100 0010	2928.75	2964.3	-0.1	-0.2	14.8	2968.4	-4.1
191	0100 0001	2944.38	2984.3	-0.0	-0.0	20.0	2984.3	0.0
192	0100 0000	2960.00	2999.3	0.4	0.4	15.0	3000.1	-0.8
195	0011 1111	2975.63	3012.8	-0.0	-0.0	13.5	3015.9	-3.1
194	0011 1110	2991.25	3021.0	-0.2	-0.3	8.2	3031.7	-10.8
195	0011 1101	3006.88	3047.5	0.0	0.1	26.5	3047.6	-0.1
194	0011 1100	3022.50	3059.9	-0.0	-0.1	12.4	3063.4	-3.4
197	0011 1011	3038.13	3078.8	-0.3	-0.2	18.8	3079.2	-0.4
198	0011 1010	3053.75	3087.8	0.4	0.2	9.0	3095.0	-7.2
199	0011 1001	3069.38	3114.3	0.0	0.1	26.5	3110.8	3.5
200	0011 1000	3085.00	3115.5	0.0	-0.1	1.2	3126.7	-11.2
201	0011 0111	3100.63	3140.4	-0.1	0.1	24.9	3142.5	-2.1
202	0011 0110	3116.25	3151.2	0.2	0.2	10.8	3158.3	-7.1
203	0011 0101	3131.88	3175.0	-0.1	-0.3	23.8	3174.1	0.9
204	0011 0100	3147.50	3190.9	-0.2	-0.2	15.9	3190.0	1.0
205	0011 0011	3163.13	3206.2	0.0	-0.1	15.3	3205.8	0.5
206	0011 0010	3178.75	3218.3	0.8	1.2	12.0	3221.6	-3.3
207	0011 0001	3194.38	3241.6	-0.0	-0.1	23.3	3237.4	4.2
208	0011 0000	3210.00	3253.6	-0.4	-0.1	11.9	3253.2	0.3
209	0010 1111	3225.63	3266.7	0.0	-0.1	13.7	3269.1	-2.3

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OF POOR QUALITY

185 200 THERMAL MUX UNIT TEST MODEL 11 FL 1 S/N 3 PAGE 248

1981/11/30 11:46:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-11-14-15-18 20/0 THRESHOLD TEST CHAND= 1 SENSOR=16

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:11 NOMINAL LOWER UPPER			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION	
210 0010 1110	3241.25	3275.9	-0.0	-0.2	9.2	3284.9	-9.0
211 0010 1101	3275.88	3301.9	-0.1	-0.2	26.0	3300.7	1.2
212 0010 1100	3272.50	3318.2	-0.0	0.0	16.2	3316.5	1.6
213 0010 1011	3203.13	3332.9	0.0	0.0	14.7	3332.4	0.6
214 0010 1010	3183.75	3343.3	0.0	-0.0	10.4	3348.2	-4.9
215 0010 1001	3119.38	3369.0	-0.2	-0.1	25.7	3364.0	5.0
216 0010 1000	3125.00	3374.9	-0.1	-0.1	5.9	3379.8	-4.9
217 0010 0111	3350.63	3395.0	-0.1	-0.1	20.1	3395.6	-0.6
218 0010 0110	3366.25	3406.7	-0.3	-0.3	11.7	3411.5	-4.8
219 0010 0101	3381.88	3429.6	-0.2	-0.1	22.8	3427.3	2.3
220 0010 0100	3397.50	3449.2	0.0	0.0	19.7	3443.1	6.1
221 0010 0011	3413.13	3461.3	0.0	0.0	12.1	3458.9	2.4
222 0010 0010	3428.75	3475.6	-0.5	0.1	14.2	3474.8	0.8
223 0010 0001	3444.38	3496.6	-0.1	-0.1	21.0	3490.6	6.0
224 0010 0000	3460.00	3505.8	-0.0	-0.0	9.1	3506.4	-0.6
225 0001 1111	3475.63	3521.5	-0.1	-0.1	15.8	3522.2	-0.7
226 0001 1110	3491.25	3528.9	-0.0	0.0	7.3	3528.1	-9.2
227 0001 1101	3506.88	3536.6	-0.4	0.1	27.7	3533.9	2.7
228 0001 1100	3522.50	3549.7	-0.5	-0.6	13.1	3549.7	0.0
229 0001 1011	3538.13	3589.3	0.0	-0.1	19.6	3585.5	3.8
230 0001 1010	3553.75	3596.6	0.4	0.7	7.3	3601.3	-4.7
231 0001 1001	3569.38	3623.7	-0.0	-0.0	27.0	3617.2	6.5
232 0001 1000	3585.00	3628.5	-0.1	-0.1	4.8	3633.0	-4.5
233 0001 0111	3600.63	3650.0	0.0	-0.1	21.5	3648.8	1.1
234 0001 0110	3616.25	3660.5	0.1	0.3	10.5	3664.6	-4.1
235 0001 0101	3631.88	3684.9	-0.1	0.0	24.4	3680.5	4.4
236 0001 0100	3647.50	3701.4	-0.2	-0.0	16.5	3696.3	5.1

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HQ-224 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 249
 1981/11/30 11:44:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-15-81 A/D THRESHOLD TEST (RAND= 1, SENSOR=16)



THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3716.7	0.1	0.2	15.3	3712.1	4.6
238	0001 0010	3678.75	3729.4	0.1	-0.8	12.7	3727.9	1.5
239	0001 0001	3694.38	3752.3	-0.1	0.0	22.9	3743.7	8.6
240	0001 0000	3710.00	3767.9	-0.0	0.5	15.6	3759.6	8.4
241	0000 1111	3725.63	3777.9	-0.1	0.0	9.9	3775.4	2.5
242	0000 1110	3741.25	3786.2	-0.3	-0.3	8.3	3791.2	-5.0
243	0000 1101	3756.88	3812.8	-0.1	0.0	26.6	3807.0	5.8
244	0000 1100	3772.50	3828.4	1.5	-0.1	15.6	3822.9	5.6
245	0000 1011	3788.13	3844.6	0.9	1.4	16.2	3838.7	5.9
246	0000 1010	3803.75	3854.7	-0.2	-0.4	10.1	3854.5	0.2
247	0000 1001	3819.38	3890.6	-1.0	-0.1	25.9	3870.3	10.3
248	0000 1000	3835.00	3889.9	0.0	0.6	9.2	3886.1	3.7
249	0000 0111	3850.63	3907.1	-0.1	-0.0	17.2	3907.0	5.1
250	0000 0110	3866.25	3918.2	-0.4	-0.0	11.1	3917.8	0.4
251	0000 0101	3881.88	3941.5	-0.2	0.0	23.4	3933.6	7.9
252	0000 0100	3897.50	3962.0	-0.2	-0.2	20.4	3949.4	12.5
253	0000 0011	3913.13	3974.0	-0.1	-0.1	12.1	3965.3	8.8
254	0000 0010	3928.75	3987.3	-0.1	0.4	13.3	3981.1	6.2
255	0000 0001	3944.38	4008.8	-0.1	0.6	21.4	3996.9	11.9

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Appendix A

Multiplexer Performance Data

A/D THRESHOLD TEST DATA
Band 2

Section 4B



HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 250
1981/11/30 11:53:25 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 2, SENSOR=1)
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.871X - 45.9MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.573%
OFFSET IS: -45.9MV
COEFFICIENT OF DETERMINATION IS: $R^{xx2} = .99999160$
ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.075MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
25.4MV	220	15.929MV	1.4MV	185	4.646MV

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
1.3MV	143	-0.028MV	-1.2MV	244	.665MV

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
5.7MV	238	0.009MV	-1.4MV	95	.839MV

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145 200. THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 251
1981.11.30 11:53:19 DENSITY FULL PERFORMANCE @ AMBIENT TEMP.
34.11 0.5-8 AND THRESHOLD TEST (RAND= 2. SENSOR=1)

THRESHOLD AND OUTPUT	IDEAL	ANALOG INPUT VOLTAGE (MV)			INCREASE	BEST FLT STRAIGHT LINE	
MUX FLT THRESHOLD	VALUE	LEVELS RATIO - 1:1			FROM PREV	POINT	DEVIATION
	(MV)	NOMINAL	LOWER	UTER	THRESHOLD		

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-35.9	-1.7	-0.6		-30.1	-5.8
2	1111 1110	-8.750	-19.5	-0.1	-0.5	16.4	-14.2	-5.3
3	1111 1101	6.875	1.1	0.6	0.7	20.6	1.7	-0.6
4	1111 1100	22.500	14.5	0.9	1.0	13.4	17.5	-3.0
5	1111 1011	38.125	31.2	-0.8	-0.7	16.7	33.4	-2.2
6	1111 1010	53.750	51.2	-0.8	-0.8	20.1	49.3	2.0
7	1111 1001	69.375	67.8	0.7	-0.5	16.5	65.2	2.6
8	1111 1000	85.000	78.1	0.6	0.7	10.3	81.0	-3.0
9	1111 0111	100.625	91.7	-0.1	0.6	13.6	96.9	-5.2
10	1111 0110	116.250	111.0	-0.7	-0.6	19.3	112.8	-1.8
11	1111 0101	131.875	129.9	-0.8	-0.8	18.9	128.6	1.3
12	1111 0100	147.500	146.5	0.7	1.1	16.6	144.5	2.0
13	1111 0011	163.125	158.3	0.6	0.7	11.8	160.4	-2.0
14	1111 0010	178.750	179.8	-0.5	0.1	21.4	176.3	3.5
15	1111 0001	194.375	195.9	-0.8	-0.8	16.1	192.1	3.8
16	1111 0000	210.000	204.9	0.0	-0.7	9.0	208.0	-3.1
17	1110 1111	225.625	218.9	0.7	0.8	14.0	223.9	-5.0
18	1110 1110	241.250	235.5	0.4	0.5	16.6	239.7	-4.2
19	1110 1101	256.875	257.0	-0.7	-0.7	21.5	255.6	1.4
20	1110 1100	272.500	273.0	-0.7	-0.7	16.0	271.5	1.5
21	1110 1011	288.125	285.7	0.6	-0.0	12.7	287.3	-1.7
22	1110 1010	303.750	306.2	0.6	0.7	20.5	303.2	3.0
23	1110 1001	319.375	322.9	-0.1	0.7	16.2	319.1	3.9
24	1110 1000	335.000	338.4	-0.9	-0.9	15.4	335.0	3.4
25	1110 0111	350.625	347.5	-0.7	-0.7	9.1	350.8	-3.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 252
1981/11/30 11:52:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3-11-14-1-1-1-1 AND THRESHOLD TEST (RAND= 2, SENSOR=1)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
26 1110 0110	366.250	365.7	0.6	0.5	18.1	366.7	-1.0
27 1110 0101	381.875	384.3	0.7	0.7	18.6	382.6	1.7
28 1110 0100	397.500	405.3	-0.8	0.0	21.0	398.4	6.8
29 1110 0011	413.125	414.1	-0.7	-0.7	8.8	414.8	-0.2
30 1110 0010	428.750	435.0	-0.1	-0.5	20.9	430.2	4.8
31 1110 0001	444.375	450.1	0.8	0.9	15.0	446.1	4.0
32 1110 0000	460.000	457.8	0.6	0.7	7.7	461.9	-4.2
33 1101 1111	475.625	475.4	-0.8	-0.8	17.6	477.8	-2.4
34 1101 1110	491.250	491.1	-0.8	-0.8	15.7	493.7	-2.5
35 1101 1101	506.875	511.7	0.6	-0.0	20.6	509.5	2.2
36 1101 1100	522.500	524.5	0.7	0.7	12.8	525.4	-0.9
37 1101 1011	538.125	541.3	-0.1	0.6	16.7	541.3	-0.0
38 1101 1010	553.750	561.1	-0.9	-0.8	19.8	557.2	4.0
39 1101 1001	569.375	578.9	-0.7	-0.7	17.8	573.0	5.9
40 1101 1000	585.000	590.4	0.6	0.6	11.5	588.9	1.5
41 1101 0111	600.625	602.2	0.7	0.6	11.8	604.8	-2.6
42 1101 0110	616.250	620.8	-0.6	-0.0	18.6	620.6	0.2
43 1101 0101	631.875	640.1	-0.8	-0.8	19.2	636.5	3.6
44 1101 0100	647.500	657.3	-0.8	-0.8	17.7	652.4	4.9
45 1101 0011	663.125	668.6	0.7	0.6	11.3	668.2	0.3
46 1101 0010	678.750	691.2	0.4	0.6	22.4	684.1	7.0
47 1101 0001	694.375	706.1	-0.9	-1.0	14.9	700.0	6.1
48 1101 0000	710.000	718.0	-0.8	-0.7	11.9	715.9	2.1
49 1100 1111	725.625	728.7	0.8	-0.0	10.7	731.7	-3.0
50 1100 1110	741.250	744.5	0.6	0.7	15.8	747.6	-3.1
51 1100 1101	756.875	765.5	-0.0	0.6	21.0	763.5	2.1

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US 224 THOMATIC MATTER MIX UNIT TEST MODEL.. H.L. S/N 3 PAGE 253

1981-11-30 11:53:39 PENALTY FULL PERFORMANT @ AMBIENT TEMP.

347.11-11-11 0000 THRESHOLD TEST CHAND= 2, SENSOR=1

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
52 1100 1100	772.500	782.0 -0.7 -0.9	16.4	779.3 2.7
53 1100 1011	788.125	795.6 -0.7 -0.7	13.6	795.2 0.4
54 1100 1010	803.750	814.6 0.6 0.9	19.0	811.1 3.5
55 1100 1001	819.375	831.7 0.7 0.8	17.1	827.0 4.7
56 1100 1000	835.000	850.4 -0.7 -0.0	18.7	842.8 7.5
57 1100 0111	850.625	856.1 -0.9 -0.5	5.8	858.7 -2.6
58 1100 0110	866.250	873.8 0.2 -0.7	17.7	874.6 -0.7
59 1100 0101	881.875	892.4 0.6 0.8	18.6	890.4 2.0
60 1100 0100	897.500	912.3 0.9 0.7	19.9	906.3 6.0
61 1100 0011	913.125	922.1 -0.7 -0.6	9.7	922.2 -0.1
62 1100 0010	928.750	942.5 -0.7 -0.6	20.5	938.0 4.5
63 1100 0001	944.375	958.2 0.7 -0.0	15.6	953.9 4.3
64 1100 0000	960.000	965.8 0.7 0.6	7.6	969.8 -4.0
65 1011 1111	975.625	984.0 0.0 0.7	18.2	985.7 -1.7
66 1011 1110	991.250	1000.0 -0.7 -0.6	16.0	1001.5 -1.5
67 1011 1101	1006.88	1021.5 -0.7 -0.7	21.5	1017.4 4.1
68 1011 1100	1022.50	1032.3 1.1 1.1	10.8	1033.3 -0.9
69 1011 1011	1038.13	1050.0 0.8 0.7	17.6	1049.1 0.8
70 1011 1010	1053.75	1070.8 -0.6 -0.0	20.8	1065.0 5.8
71 1011 1001	1069.38	1087.5 -0.8 -0.7	16.7	1080.9 6.6
72 1011 1000	1085.00	1097.2 0.0 0.6	9.7	1094.8 0.4
73 1011 0111	1100.63	1110.6 0.7 0.6	13.4	1112.6 -2.0
74 1011 0110	1116.25	1128.4 0.6 0.6	17.7	1128.5 -0.1
75 1011 0101	1131.88	1148.1 -0.8 -0.8	19.8	1144.4 3.8
76 1011 0100	1147.50	1165.5 -0.6 -0.6	17.4	1160.2 5.3
77 1011 0011	1163.13	1176.4 0.6 0.0	10.9	1176.1 0.3
78 1011 0010	1178.75	1196.2 0.6 0.6	19.8	1192.0 4.3

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 254

1981/11/30 11:53:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.1.1.3.1.1-14 AND THRESHOLD TEST (RAND= 2, SENSOR=1) 0000

THRESHOLD NUMBER	AND OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1212.8	0.1	1.0	14.6	1207.9	5.0
80	1011 0000	1210.00	1223.2	-0.8	-0.7	10.3	1223.7	-0.6
81	1010 1111	1225.63	1237.1	-0.7	-0.6	14.0	1239.6	-2.4
82	1010 1110	1241.25	1251.9	0.7	0.6	14.8	1255.5	-3.5
83	1010 1101	1256.88	1273.1	0.7	0.6	21.2	1271.3	1.8
84	1010 1100	1272.50	1288.3	-0.6	-0.0	15.2	1287.2	1.1
85	1010 1011	1288.13	1303.0	-0.7	-0.6	14.7	1303.1	-0.1
86	1010 1010	1303.75	1322.1	0.0	-0.8	19.1	1318.9	3.2
87	1010 1001	1319.38	1338.9	0.8	0.8	16.8	1334.8	4.1
88	1010 1000	1335.00	1353.1	0.4	0.5	14.2	1350.7	2.4
89	1010 0111	1350.63	1363.6	-0.8	-0.8	10.4	1366.6	-3.0
90	1010 0110	1366.25	1381.3	-0.5	-0.8	17.7	1382.4	-1.2
91	1010 0101	1381.88	1399.4	0.8	0.0	18.1	1398.3	1.1
92	1010 0100	1397.50	1421.1	0.6	0.4	21.7	1414.2	6.9
93	1010 0011	1413.13	1428.5	-0.3	0.7	7.5	1430.0	-1.5
94	1010 0010	1428.75	1449.3	-0.6	-0.8	20.7	1445.9	3.4
95	1010 0001	1444.38	1465.8	-0.7	-1.4	16.5	1461.8	4.0
96	1010 0000	1460.00	1476.4	0.8	0.7	10.6	1477.7	-1.3
97	1001 1111	1475.63	1499.2	0.7	0.7	12.8	1493.5	-4.3
98	1001 1110	1491.25	1504.7	-0.5	-0.2	15.4	1509.4	-4.7
99	1001 1101	1506.88	1526.4	-0.9	-0.9	21.7	1525.3	1.1
100	1001 1100	1522.50	1537.6	0.0	-0.7	11.2	1541.1	-3.1
101	1001 1011	1538.13	1555.0	0.6	0.7	17.4	1557.0	-2.0
102	1001 1010	1553.75	1574.8	0.6	0.7	19.8	1572.9	1.9
103	1001 1001	1569.38	1592.5	-0.8	-0.9	17.6	1588.7	3.7
104	1001 1000	1585.00	1603.5	-0.7	-0.7	11.1	1604.6	-1.1

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TEST
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HRS 255 THEMATIC MAPPER MUX UNIT TEST MODEL... IUT. S/N 3 PAGE 255
 1901/12/10 11:03:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 1901/12/10 11:03:39 THERMAL THRESHOLD TEST (GRADE= 2) SENSOR=1



1901/12/10

THRESHOLD NUMBER	AND OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
105	1001 0111	1600.63	1615.7	0.7	-0.4	17.1	1620.5	-4.8
106	1001 0110	1616.25	1632.3	1.0	0.9	16.6	1636.4	-4.1
107	1001 0101	1631.88	1652.1	0.0	0.8	19.9	1652.7	-0.1
108	1001 0100	1647.50	1671.2	-0.6	-0.6	19.1	1668.1	3.1
109	1001 0011	1663.13	1682.1	-1.1	-1.0	10.8	1684.0	-1.9
110	1001 0010	1678.25	1700.8	0.5	0.5	10.8	1699.8	1.0
111	1001 0001	1694.38	1717.7	0.9	0.9	16.9	1715.7	2.0
112	1001 0000	1710.00	1736.3	-0.8	0.2	18.5	1731.6	4.7
113	1000 1111	1725.63	1742.2	-0.7	-0.6	6.0	1747.5	-0.2
114	1000 1110	1741.25	1756.7	0.3	-0.4	14.5	1763.3	-6.6
115	1000 1101	1756.88	1777.8	0.7	0.6	21.1	1779.2	-1.4
116	1000 1100	1772.50	1792.2	0.8	0.8	14.4	1795.1	-2.3
117	1000 1011	1788.13	1808.0	-0.8	-0.7	15.8	1810.9	-2.9
118	1000 1010	1803.75	1826.0	-0.7	0.8	20.0	1826.8	1.2
119	1000 1001	1819.38	1843.6	0.8	-0.2	15.6	1847.7	0.9
120	1000 1000	1835.00	1861.0	0.5	0.5	17.4	1858.6	2.5
121	1000 0111	1850.63	1867.3	0.5	0.9	6.3	1874.4	-7.1
122	1000 0110	1866.25	1885.5	-1.1	-1.1	18.2	1890.3	-4.8
123	1000 0101	1881.88	1904.7	-0.0	-0.8	19.1	1906.2	-1.5
124	1000 0100	1897.50	1922.2	0.8	0.8	18.0	1922.0	0.7
125	1000 0011	1913.13	1933.3	0.5	0.6	10.6	1937.9	-4.6
126	1000 0010	1928.25	1952.3	-0.7	-0.2	20.0	1953.8	-0.5
127	1000 0001	1944.38	1970.2	-0.6	-0.2	16.9	1969.6	0.6
128	1000 0000	1960.00	1984.5	-0.0	-0.8	14.3	1985.5	-1.0
129	0111 1111	1975.63	1996.7	0.9	0.7	12.2	2001.4	-4.7
130	0111 1110	1991.25	2013.5	0.4	0.6	16.8	2017.3	-3.7

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HL-724 THMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 256
 1981/11/30 11:23:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.1.1.1.1.1-8 A/D THRESHOLD TEST (BRAND= 2, SENSOR=1)



REV 30 81

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LEVELS RATIO- LOWER	1 : 1 UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2035.0	-0.8	-0.8	21.5	2033.1	1.9
132	0111 1100	2022.50	2047.3	-0.8	-0.7	12.3	2049.0	-1.7
133	0111 1011	2038.13	2062.7	0.8	-0.0	15.4	2064.9	-2.2
134	0111 1010	2054.75	2081.3	0.7	5.1	18.6	2080.7	0.6
135	0111 1001	2069.38	2100.2	-0.0	0.3	18.9	2096.6	3.6
136	0111 1000	2085.00	2110.8	-0.6	-0.6	10.6	2112.5	-1.7
137	0111 0111	2100.63	2124.0	-0.3	-0.7	13.2	2128.4	-4.4
138	0111 0110	2116.25	2142.0	0.8	0.5	18.0	2144.2	-2.3
139	0111 0101	2131.88	2160.4	1.0	0.9	18.4	2160.1	0.3
140	0111 0100	2147.50	2181.5	-0.7	-0.1	21.1	2176.0	5.5
141	0111 0011	2163.13	2189.9	-1.1	-0.8	8.4	2191.8	-1.9
142	0111 0010	2178.75	2210.9	-0.2	-0.8	20.9	2207.7	3.2
143	0111 0001	2194.38	2226.0	1.3	1.3	15.1	2223.6	2.4
144	0111 0000	2210.00	2239.5	0.0	0.4	13.5	2239.4	0.1
145	0110 1111	2225.63	2250.2	-0.8	-1.1	10.7	2255.3	-5.1
146	0110 1110	2241.25	2266.4	-0.5	-0.5	16.2	2271.2	-4.8
147	0110 1101	2256.88	2286.6	0.7	-0.0	20.1	2287.1	-0.5
148	0110 1100	2272.50	2302.7	0.7	0.7	16.1	2302.9	-0.3
149	0110 1011	2288.13	2315.0	-0.2	0.9	12.3	2318.8	-3.8
150	0110 1010	2303.75	2334.3	-0.6	-0.5	19.3	2334.7	-0.4
151	0110 1001	2319.38	2353.1	0.1	-0.7	18.8	2350.5	2.6
152	0110 1000	2335.00	2369.2	0.8	0.8	16.1	2366.4	2.8
153	0110 0111	2350.63	2375.5	1.0	0.6	6.3	2382.3	-6.7
154	0110 0110	2366.25	2395.0	-0.7	0.1	19.5	2398.2	-3.1
155	0110 0101	2381.88	2413.6	-0.7	-0.9	18.6	2414.0	-0.4
156	0110 0100	2397.50	2437.8	0.1	-0.8	24.1	2429.9	7.9
157	0110 0011	2413.13	2441.3	0.7	0.8	3.6	2445.8	-4.4

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REV 30 79

HS-236 THERMATIC BATTERY BOX UNIT TEST MODEL... FLT. S/N 3 PAGE 257
 1981/11/30 11:53:39 DENSITY FULL PERFORMANCE @ AMBIENT TEMP.
 TESTED BY: [illegible] TESTED BY: [illegible] THRESHOLD T1-T2T COND= 24 SENSOR=1

INCREASED A/D OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
158	0110 0010	2428.75	2462.7	-0.1	0.6	21.4	2461.6	1.1
159	0110 0001	2444.38	2479.5	-0.9	-0.9	16.8	2477.5	2.0
160	0110 0000	2460.00	2488.3	-0.6	-0.2	8.8	2493.4	-5.1
161	0101 1111	2475.63	2502.5	0.7	-0.4	14.2	2509.3	-6.7
162	0101 1110	2491.25	2518.3	0.5	0.5	15.8	2525.1	-6.8
163	0101 1101	2506.88	2539.4	0.1	0.9	21.0	2541.0	-1.6
164	0101 1100	2522.50	2552.7	-0.7	-0.9	13.4	2556.9	-4.1
165	0101 1011	2538.13	2569.1	-0.0	-0.8	16.4	2572.7	-3.6
166	0101 1010	2553.75	2590.9	0.7	0.7	21.7	2588.6	2.3
167	0101 1001	2569.38	2605.5	0.9	0.9	14.6	2604.5	1.0
168	0101 1000	2585.00	2618.7	-0.6	0.0	13.2	2620.3	-1.7
169	0101 0111	2600.63	2629.9	-0.7	-0.8	11.2	2636.2	-6.3
170	0101 0110	2616.25	2647.9	-0.1	-0.6	18.0	2652.1	-4.2
171	0101 0101	2631.88	2665.9	0.8	0.9	18.0	2668.0	-2.0
172	0101 0100	2647.50	2686.9	-0.0	0.6	21.0	2683.8	4.1
173	0101 0011	2663.13	2691.6	-0.7	-0.7	8.6	2699.7	-4.1
174	0101 0010	2678.75	2715.7	-0.6	-0.6	20.2	2715.6	0.2
175	0101 0001	2694.38	2731.9	0.8	0.0	16.2	2731.4	0.5
176	0101 0000	2710.00	2748.9	1.0	0.8	16.9	2747.3	1.5
177	0100 1111	2725.63	2755.2	0.0	0.6	6.4	2763.2	-8.0
178	0100 1110	2741.25	2771.7	-0.8	-0.6	16.4	2779.1	-7.4
179	0100 1101	2756.88	2792.7	-0.0	-0.8	21.1	2794.9	-2.2
180	0100 1100	2772.50	2807.5	0.8	0.8	14.8	2810.8	-3.3
181	0100 1011	2788.13	2820.7	0.9	1.0	13.2	2826.7	-6.0
182	0100 1010	2803.75	2844.5	-0.7	-0.3	23.8	2842.5	2.0
183	0100 1001	2819.38	2858.7	-0.8	-0.7	14.1	2858.4	0.3

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HS-234 DYNAMIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 258
 1981/11/30 11:53:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 BUILT-IN AND THRESHOLD TEST (COND= 2, SENSOR=1)



REV 30 81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
184 0100 1000	2835.00	2879.9	0.0	-0.8	21.3	2874.3	5.7
185 0100 0111	2850.63	2881.3	0.9	0.7	1.4	2890.1	-8.8
186 0100 0110	2866.25	2899.9	-0.4	0.6	18.5	2906.0	-6.2
187 0100 0101	2881.88	2919.2	-0.8	-0.9	19.3	2921.9	-2.7
188 0100 0100	2897.50	2943.8	-0.7	-0.7	24.6	2937.8	6.0
189 0100 0011	2913.13	2947.5	0.4	-0.1	3.7	2953.6	-6.2
190 0100 0010	2928.75	2967.9	0.3	0.4	20.4	2969.5	-1.6
191 0100 0001	2944.38	2984.4	-0.1	0.8	16.5	2985.4	-1.0
192 0100 0000	2960.00	2995.1	-0.7	-1.1	10.7	3001.2	-6.1
193 0011 1111	2975.63	3010.7	-0.4	-0.9	15.6	3017.1	-6.4
194 0011 1110	2991.25	3025.8	0.9	0.5	15.0	3033.0	-7.2
195 0011 1101	3006.88	3047.0	0.8	0.9	21.3	3048.9	-1.8
196 0011 1100	3022.50	3059.2	-0.7	-0.1	12.1	3064.7	-5.6
197 0011 1011	3038.13	3076.5	-0.9	-0.8	17.4	3080.6	-4.1
198 0011 1010	3053.75	3099.5	-0.1	-0.8	23.0	3096.5	3.1
199 0011 1001	3069.38	3113.7	0.7	0.8	14.1	3112.3	1.3
200 0011 1000	3085.00	3122.8	0.0	0.6	9.1	3128.2	-5.4
201 0011 0111	3100.63	3137.6	-0.4	-0.6	14.8	3144.1	-6.4
202 0011 0110	3116.25	3156.1	-0.7	-0.7	18.5	3160.0	-3.8
203 0011 0101	3131.88	3174.6	0.7	-0.1	18.5	3175.8	-1.2
204 0011 0100	3147.50	3194.2	0.6	0.7	19.5	3191.7	2.5
205 0011 0011	3163.13	3203.1	0.3	0.8	8.9	3207.6	-4.5
206 0011 0010	3178.75	3224.4	-0.7	-0.6	21.4	3223.4	1.0
207 0011 0001	3194.38	3241.7	0.0	-0.8	17.2	3239.3	2.3
208 0011 0000	3210.00	3250.3	0.7	0.6	8.6	3255.2	-4.9
209 0010 1111	3225.63	3264.5	0.5	0.4	14.1	3271.0	-6.6

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EX-30-71

'02' 01:05:44 6/10 TRESHOLD TEST (RAND= 2, SENSOR=1

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HS 236 THERMATIC DAPPLER BOX UNIT TEST MODEL.. FLT. S/N 3 PAGE 260

1981/11/30 11:23:19 PENALTY FREE PERFORMANCE @ AMBIENT TEMP.

3.2.11.1.1.3 AND THRESHOLD TEST (HAND= 2. SENSOR=1) 01/30/81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1:1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
236 0001 0011	3663.13	3714.8	0.7	0.9	8.2	3715.4	-0.6
238 0001 0010	3678.75	3735.9	-0.6	5.7	21.0	3731.3	4.6
239 0001 0001	3694.38	3753.7	-0.9	-0.8	17.8	3747.7	6.5
240 0001 0000	3710.00	3773.2	-0.2	-0.8	19.5	3763.0	10.1
241 0000 1111	3725.63	3776.8	0.6	0.7	3.7	3778.9	-2.1
242 0000 1110	3741.25	3792.3	-0.2	0.4	15.4	3794.8	-2.5
243 0000 1101	3756.88	3814.7	-1.0	-0.7	22.4	3810.7	4.0
244 0000 1100	3772.50	3829.7	-1.2	-1.2	15.1	3826.5	3.2
245 0000 1011	3788.13	3843.5	0.5	-0.1	13.8	3842.4	1.1
246 0000 1010	3803.75	3866.6	0.4	0.5	23.1	3858.3	8.4
247 0000 1001	3819.38	3881.1	-0.1	0.8	14.5	3874.1	7.0
248 0000 1000	3835.00	3903.8	-0.9	-0.8	22.7	3890.0	13.8
249 0000 0111	3850.63	3906.3	-0.3	-1.0	2.4	3905.9	0.4
250 0000 0110	3866.25	3923.3	0.7	0.5	17.0	3921.7	1.5
251 0000 0101	3881.88	3942.7	0.7	0.8	19.4	3937.6	5.1
252 0000 0100	3897.50	3967.9	-0.9	-0.0	25.2	3953.5	14.4
253 0000 0011	3913.13	3972.9	-0.7	-0.6	5.0	3969.4	3.5
254 0000 0010	3928.75	3993.3	-0.4	-0.7	20.4	3985.2	8.0
255 0000 0001	3944.38	4010.1	0.6	0.9	16.8	4001.1	9.0

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REV 10 81

HS 236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 262
 1981/11/10 12:00:15 PENALTY FULL PERFORMANCE PLANTENT TEMP.
 3.15.3.5-B AND THRESHOLD TEST (RAND= 2, SENSOR=2)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (10)	ANALOG INPUT VOLTAGE (MV) LEVEL'S RATIO - 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-29.1	0.2	0.1		-22.2	-6.9
2	1111 1110	-8.750	-11.9	0.5	0.5	17.2	-6.3	-5.6
3	1111 1101	6.875	9.3	-0.1	0.4	21.1	9.6	-0.3
4	1111 1100	22.500	21.8	-0.5	-0.5	12.6	25.5	-3.4
5	1111 1011	38.125	38.2	-0.4	-0.4	16.4	41.4	-3.1
6	1111 1010	53.750	60.2	0.3	0.5	21.9	57.2	3.0
7	1111 1001	69.375	75.9	-0.3	-0.2	15.7	73.1	2.8
8	1111 1000	85.000	87.9	-0.4	0.1	11.9	89.0	-1.1
9	1111 0111	100.625	99.6	-0.3	-0.4	11.8	104.9	-5.2
10	1111 0110	116.250	119.2	-0.0	-0.6	19.4	120.8	-1.6
11	1111 0101	131.875	137.4	0.6	0.5	18.2	136.6	0.8
12	1111 0100	147.500	154.1	0.6	0.5	16.7	152.5	1.6
13	1111 0011	163.125	166.5	-0.6	-0.4	12.4	168.4	-1.9
14	1111 0010	178.750	188.4	-0.5	-0.4	21.9	184.3	4.1
15	1111 0001	194.375	202.8	0.5	0.5	14.4	200.2	2.6
16	1111 0000	210.000	213.4	0.5	0.5	10.6	216.1	-2.7
17	1110 1111	225.625	226.7	-0.1	0.4	13.3	231.9	-5.3
18	1110 1110	241.250	244.5	-0.5	-0.6	17.3	247.8	-3.3
19	1110 1101	256.875	265.4	0.0	-0.4	20.9	263.7	1.7
20	1110 1100	272.500	279.4	0.4	0.4	14.0	279.6	-0.2
21	1110 1011	288.125	293.4	0.3	0.3	14.0	295.5	-2.0
22	1110 1010	303.750	316.0	-0.5	-0.1	22.5	311.3	4.6
23	1110 1001	319.375	330.6	0.2	-0.4	14.6	327.2	3.4
24	1110 1000	335.000	347.5	-0.1	-0.6	16.9	343.1	4.4
25	1110 0111	350.625	354.5	0.4	0.5	7.0	359.0	-4.4

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3-11-74, 1070 THRESHOLD IS 11.511 CHAND= 2, SENSITV=2

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NOV 30 1977

TEST SERIAL NUMBER	A/D OUTPUT THRESHOLD	TOTAL VOLUME (175)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- NOMINAL LOWER UPPER	INITIAL FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
26	1110 0110	366.250	374.1 0.0 0.5	19.6	374.9 -0.8
27	1110 0101	381.875	393.2 -0.5 -0.4	19.1	390.7 2.4
28	1110 0100	397.500	412.8 -0.4 -0.6	19.6	406.6 6.2
29	1110 0011	413.125	421.1 0.4 0.1	8.3	427.5 -1.4
30	1110 0010	428.750	443.3 0.5 0.5	22.1	438.4 4.9
31	1110 0001	444.375	458.1 0.0 0.5	14.9	454.3 3.9
32	1110 0000	460.000	467.1 -0.4 -0.4	9.0	470.2 -3.0
33	1101 1111	475.625	483.0 -0.2 -0.7	15.9	486.0 -3.0
34	1101 1110	491.250	498.8 0.6 0.5	15.8	501.9 -3.1
35	1101 1101	506.875	520.7 0.3 0.5	21.8	517.8 2.9
36	1101 1100	522.500	532.6 -0.4 -0.0	11.9	533.7 -1.1
37	1101 1011	538.125	549.3 -0.2 -0.3	14.7	549.6 -0.3
38	1101 1010	553.750	570.8 -0.0 -0.5	21.1	565.4 5.3
39	1101 1001	569.375	586.7 0.4 0.2	16.0	581.3 5.4
40	1101 1000	585.000	601.3 -0.0 0.5	14.6	597.2 4.1
41	1101 0111	600.625	610.4 -0.5 -0.4	9.1	613.1 -2.7
42	1101 0110	616.250	629.3 -0.4 -0.3	18.8	629.0 0.3
43	1101 0101	631.875	648.2 0.4 0.0	18.9	644.8 3.3
44	1101 0100	647.500	664.3 0.5 0.4	16.1	660.7 3.6
45	1101 0011	663.125	676.4 -0.0 0.4	12.0	676.6 -0.3
46	1101 0010	678.750	698.1 -0.6 -0.5	21.7	692.5 5.6
47	1101 0001	694.375	713.3 0.0 -0.3	15.2	708.4 3.0
48	1101 0000	710.000	729.3 0.4 0.5	16.0	724.2 3.1
49	1100 1111	725.625	736.7 0.3 0.3	7.3	740.1 -3.5
50	1100 1110	741.250	756.7 -0.6 0.0	12.0	756.0 -2.3
51	1100 1101	756.875	775.6 -0.8 -0.7	21.9	771.9 3.7

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 264
 1981/11/00 12:00:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3-13-81-1-1 A/D THRESHOLD TEST (HAND= 2, SENSOR=2)



REV 30 81

THRESHOLD NUMBER	A/D THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	789.2	-0.1	-0.5	13.6	787.8	1.4
53	1100 1011	788.125	802.9	0.5	0.4	13.7	803.7	-0.8
54	1100 1010	803.750	824.5	-0.3	0.7	21.6	819.5	4.9
55	1100 1001	819.375	841.8	-0.5	-0.4	17.3	835.4	6.4
56	1100 1000	835.000	859.8	-0.4	-0.7	18.0	851.3	8.5
57	1100 0111	850.625	863.7	0.9	0.1	3.8	867.2	-3.5
58	1100 0110	866.250	882.6	0.3	0.5	18.9	883.1	-0.5
59	1100 0101	881.875	901.6	0.1	0.4	19.0	898.9	2.7
60	1100 0100	897.500	920.9	-0.5	-0.5	19.3	914.8	6.1
61	1100 0011	913.125	930.0	-0.0	-0.4	9.1	930.7	-0.8
62	1100 0010	928.750	950.8	0.7	0.7	20.8	946.6	4.2
63	1100 0001	944.375	966.0	0.3	0.3	15.2	962.5	3.5
64	1100 0000	960.000	975.6	-0.5	0.0	9.6	978.3	-2.8
65	1011 1111	975.625	992.0	-0.5	-0.5	16.5	994.2	-2.2
66	1011 1110	991.250	1008.4	0.0	-0.5	16.3	1010.1	-1.7
67	1011 1101	1006.88	1029.5	0.5	0.4	21.1	1026.0	3.5
68	1011 1100	1022.50	1040.3	-0.0	0.5	10.8	1041.9	-1.6
69	1011 1011	1038.13	1058.1	-0.3	-0.2	17.8	1057.8	0.4
70	1011 1010	1053.75	1079.9	-0.5	-0.5	21.8	1073.6	6.3
71	1011 1001	1069.38	1095.4	0.4	0.1	15.4	1089.5	5.8
72	1011 1000	1085.00	1105.2	0.7	0.7	9.8	1105.4	-0.2
73	1011 0111	1100.63	1118.3	0.1	0.5	13.1	1121.3	-2.9
74	1011 0110	1116.25	1137.4	-0.5	-0.5	19.1	1137.2	0.2
75	1011 0101	1131.88	1156.7	0.0	-0.6	19.3	1153.0	3.7
76	1011 0100	1147.50	1171.5	0.5	0.5	14.8	1168.9	2.6
77	1011 0011	1163.13	1184.7	0.5	0.2	13.2	1184.8	-0.1
78	1011 0010	1178.75	1209.4	-0.6	-0.2	24.7	1200.7	8.8

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EX 30 7

HS-276 THERMATIC MAPPER MUX UNIT TEST MODEL... FLI. S/N 3 PAGE 265
1981/11/30 12:00:11 FIDALTY FULL PERFORMANCE @ AMBIENT TEMP.
12.12.11.11.11 6/13 THRESHOLD TEST (CHAND= 2, SENSORS=2)

THRESHOLD NUMBER	6/20 OUTPUT THRESHOLD	DESI VALUE (40V)	ANALOG INPUT VOLTAGE (NO)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1221.1	0.6	-0.4	11.7	1216.6	4.6
80	1011 0000	1210.00	1233.6	-0.1	-0.6	12.5	1232.4	1.1
81	1010 1111	1225.63	1244.7	0.5	0.3	11.1	1248.3	-3.6
82	1010 1110	1241.25	1260.7	0.0	0.6	16.0	1264.7	-3.5
83	1010 1101	1256.88	1283.1	-0.8	-0.7	22.4	1280.1	3.0
84	1010 1100	1272.50	1295.9	-0.5	-0.5	12.7	1296.0	-0.1
85	1010 1011	1288.13	1310.3	0.5	0.3	14.4	1311.9	-1.6
86	1010 1010	1301.75	1332.2	0.6	0.5	22.0	1327.7	4.5
87	1010 1001	1319.38	1348.0	0.0	0.4	15.8	1343.6	4.4
88	1010 1000	1335.00	1364.0	-0.7	-0.6	15.9	1369.5	4.5
89	1010 0111	1350.63	1371.3	0.1	-0.4	7.3	1375.4	-4.0
90	1010 0110	1366.25	1389.5	0.6	0.6	18.1	1391.3	-1.8
91	1010 0101	1381.88	1408.7	0.5	0.5	19.2	1407.1	1.6
92	1010 0100	1397.50	1427.2	-0.4	0.1	18.5	1423.0	4.2
93	1010 0011	1413.13	1437.1	-0.3	-0.4	9.9	1438.9	-1.8
94	1010 0010	1428.75	1458.3	0.0	-0.5	21.2	1454.8	3.5
95	1010 0001	1444.38	1473.3	1.3	1.1	15.0	1470.7	2.6
96	1010 0000	1460.00	1489.0	-0.1	0.3	15.7	1486.5	2.5
97	1001 1111	1475.63	1498.1	-0.5	-0.4	9.0	1502.4	-4.4
98	1001 1110	1491.25	1513.6	-0.5	-0.5	15.5	1518.3	-1.7
99	1001 1101	1506.88	1535.6	0.4	-0.3	22.0	1534.2	1.4
100	1001 1100	1522.50	1545.4	0.5	0.6	9.8	1550.1	-4.7
101	1001 1011	1538.13	1563.3	0.0	0.4	17.9	1565.9	-2.7
102	1001 1010	1553.75	1585.0	-0.5	-0.6	21.2	1581.8	3.2
103	1001 1001	1569.38	1601.5	0.0	-0.5	16.5	1597.7	3.8
104	1001 1000	1585.00	1614.2	0.6	0.5	12.8	1613.6	0.7

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HS-234 THERMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 266

1901/11/30 12:00:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.1.1.5-1 AND THRESHOLD TEST (BAND= 2, SENSOR=2)

HAC
TEST
S27

NO 30 81

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
105	1001 0111	1600.63	1623.9	0.5	0.4	9.6	1629.5	-5.6
106	1001 0110	1616.25	1642.5	-0.6	0.0	18.6	1645.4	-2.8
107	1001 0101	1631.88	1662.4	-0.5	-0.5	19.9	1661.2	1.2
108	1001 0100	1647.50	1676.8	0.3	-0.4	14.3	1677.1	-0.3
109	1001 0011	1663.13	1689.7	0.8	0.5	12.9	1693.0	-3.3
110	1001 0010	1678.75	1713.5	0.1	0.5	23.8	1708.2	4.7
111	1001 0001	1694.38	1727.7	-0.4	-0.4	14.2	1724.8	3.0
112	1001 0000	1710.00	1746.3	-0.5	-0.6	18.6	1740.6	5.7
113	1000 1111	1725.63	1750.1	0.2	-0.3	3.8	1756.5	-6.4
114	1000 1110	1741.25	1765.5	0.8	0.6	15.4	1772.4	-6.9
115	1000 1101	1756.88	1787.7	-0.1	0.4	22.2	1788.3	0.5
116	1000 1100	1772.50	1800.8	-0.5	-0.5	13.0	1804.2	-3.4
117	1000 1011	1788.13	1816.1	0.2	-0.5	15.3	1820.0	-4.0
118	1000 1010	1803.75	1837.1	0.5	0.5	21.0	1835.9	1.2
119	1000 1001	1819.38	1853.4	0.5	0.8	16.3	1851.8	1.6
120	1000 1000	1835.00	1872.1	-0.6	0.1	18.7	1867.7	4.4
121	1000 0111	1850.63	1877.0	-0.4	-0.4	4.9	1883.6	-5.5
122	1000 0110	1866.25	1895.2	-0.2	-0.5	18.2	1899.5	-4.2
123	1000 0101	1881.88	1914.4	0.4	0.4	19.2	1915.3	-0.9
124	1000 0100	1897.50	1931.6	-0.0	0.6	17.2	1931.2	0.4
125	1000 0011	1913.13	1942.7	-0.3	-0.2	11.1	1947.1	-4.4
126	1000 0010	1928.75	1966.8	-0.4	-0.5	24.1	1963.0	3.8
127	1000 0001	1944.38	1980.1	0.4	-0.0	13.4	1978.9	1.3
128	1000 0000	1960.00	1987.4	0.6	0.6	7.3	1994.7	-7.3
129	0111 1111	1975.63	2005.8	0.0	0.4	18.4	2010.6	-4.8
130	0111 1110	1991.25	2023.6	-0.6	-0.6	17.7	2026.5	-2.9

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REV 30 88

105-215 THEMATIC MAPPER MUX UNIT TEST MODEL.. FIT. S/N 3 PAGE 268
 1981/11/30 12:00:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 14-11-11-11 AND THRESHOLD TEST (HAND-2-SENSOR-2)

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO= 1:1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
153 0110 0010	2428.75	2423.1	-0.4	-0.6	22.7	2471.2	1.9
159 0110 0001	2444.38	2487.3	0.1	0.3	14.2	2487.1	0.3
160 0110 0000	2460.00	2495.9	0.5	0.6	8.6	2502.9	-7.0
161 0101 1111	2475.63	2511.3	0.4	0.4	15.3	2518.8	-7.6
162 0101 1110	2491.25	2528.5	-0.6	0.3	17.2	2534.7	-6.2
163 0101 1101	2506.88	2549.4	-0.5	-0.3	20.9	2550.6	-1.2
164 0101 1100	2522.50	2561.7	0.1	-0.4	12.3	2566.5	-4.8
165 0101 1011	2538.13	2577.1	1.0	0.5	15.4	2582.3	-5.2
166 0101 1010	2553.75	2600.6	-0.1	0.6	23.5	2598.2	2.4
167 0101 1001	2569.38	2615.3	-0.9	-0.6	14.7	2614.1	1.2
168 0101 1000	2585.00	2628.8	-0.8	-0.5	13.4	2630.0	-1.2
169 0101 0111	2600.63	2637.9	0.4	-0.0	9.2	2645.9	-7.9
170 0101 0110	2616.25	2657.0	0.4	0.6	19.0	2661.7	-4.8
171 0101 0101	2631.88	2675.4	0.3	0.6	18.4	2677.6	-2.2
172 0101 0100	2647.50	2692.2	-0.6	-0.5	16.8	2693.5	-1.3
173 0101 0011	2663.13	2704.2	-0.1	-0.5	12.0	2709.4	-5.2
174 0101 0010	2678.75	2730.0	0.5	0.6	25.7	2725.3	4.7
175 0101 0001	2694.38	2740.9	0.3	0.6	10.9	2741.2	-0.2
176 0101 0000	2710.00	2759.1	-0.7	0.0	18.2	2757.0	2.0
177 0100 1111	2725.63	2774.6	-0.6	-0.5	5.5	2772.9	-8.3
178 0100 1110	2741.25	2781.3	-0.1	-0.4	16.7	2788.8	-7.5
179 0100 1101	2756.88	2801.8	0.5	0.5	20.4	2804.7	-2.9
180 0100 1100	2772.50	2816.2	-0.1	0.6	14.5	2820.6	-4.3
181 0100 1011	2788.13	2830.3	-0.5	-0.4	14.1	2836.4	-6.1
182 0100 1010	2803.75	2854.4	-0.6	-0.6	24.1	2852.3	2.1
183 0100 1001	2819.38	2867.4	0.4	0.1	13.0	2868.2	-0.8

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HS 2-6 THE-ATIC MASTER BOX UNIT TEST MODEL 11 FLT. S/N 3 PAGE 269

1981/11/30 12:00:15 FINALITY FULL PERFORMANCE @ AMBIENT TEMP.

1.5-1.6 1.7-1.8 1.9-2.0 2.1-2.2 2.3-2.4 2.5-2.6 2.7-2.8 2.9-3.0 3.1-3.2 3.3-3.4 3.5-3.6 3.7-3.8 3.9-4.0 4.1-4.2 4.3-4.4 4.5-4.6 4.7-4.8 4.9-5.0 5.1-5.2 5.3-5.4 5.5-5.6 5.7-5.8 5.9-6.0 6.1-6.2 6.3-6.4 6.5-6.6 6.7-6.8 6.9-7.0 7.1-7.2 7.3-7.4 7.5-7.6 7.7-7.8 7.9-8.0 8.1-8.2 8.3-8.4 8.5-8.6 8.7-8.8 8.9-9.0 9.1-9.2 9.3-9.4 9.5-9.6 9.7-9.8 9.9-10.0

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	ANALOG VOLTAGE (MV)	ANALOG INPUT VOLTAGE (MV)		INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER		POINT	DEVIATION
184	0100 1060	2887.00	2887.8	0.6	0.8	2884.1	3.7
185	0100 0111	2880.63	2890.8	0.0	0.4	2900.0	-9.2
186	0100 0110	2866.25	2910.2	-0.6	-0.4	2915.8	-5.6
187	0100 0101	2881.88	2928.8	-0.1	-0.5	2931.7	-2.9
188	0100 0100	2892.50	2947.7	0.4	0.5	2947.6	0.1
189	0100 0011	2913.13	2956.7	0.4	0.9	2963.5	-6.8
190	0100 0010	2928.75	2983.6	-0.8	0.1	2979.4	4.2
191	0100 0001	2944.38	2994.5	-0.7	-0.6	2995.2	-0.7
192	0100 0000	2950.00	3005.7	-0.1	-0.7	3011.1	-5.4
193	0011 1111	2971.63	3019.0	0.5	0.6	3027.0	-8.1
194	0011 1110	2971.25	3035.8	-0.0	0.6	3042.9	-7.1
195	0011 1101	3006.88	3052.1	-0.6	1.7	3058.8	-1.6
196	0011 1100	3022.50	3069.0	-0.5	-0.5	3074.7	5.6
197	0011 1011	3038.13	3085.3	0.3	-0.1	3090.5	-3.2
198	0011 1010	3053.75	3109.0	0.4	0.8	3106.4	2.6
199	0011 1001	3069.38	3123.3	-0.1	-0.1	3122.3	1.0
200	0011 1000	3085.00	3133.3	-0.5	-0.5	3138.2	-4.9
201	0011 0111	3100.63	3146.9	0.0	-0.4	3154.1	-7.1
202	0011 0110	3116.25	3161.4	0.5	0.9	3169.9	-4.5
203	0011 0101	3121.88	3184.1	0.5	0.5	3185.8	-1.8
204	0011 0100	3142.50	3200.8	-0.5	-0.0	3201.1	-0.9
205	0011 0011	3163.13	3213.3	-0.6	0.5	3217.6	-4.3
206	0011 0010	3178.75	3240.1	-0.1	-0.5	3243.5	6.6
207	0011 0001	3194.38	3249.6	0.7	0.6	3249.3	0.3
208	0011 0000	3210.00	3263.1	-0.1	0.4	3265.2	-2.1
209	0010 1111	3225.63	3274.1	-0.6	0.4	3281.1	-7.0

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TEST
S27

REV 30 81

H9-276 DIFMATIC METER MIX UNIT TEST MODEL.. FL1. S/N 3 PAGE 270
 1981/11/30 12:00:15 DIFMATIC FULL PERFORMANCE @ AMBIENT TEMP.
 11-11-11-11-11 AND THRESHOLD TEST COND= 2, SENSOR=2



REV 30 '81

DIFMATIC A/D OUTPUT NUMBER	THRESHOLD	DIGITAL VALUE (KV)	ANALOG INPUT VOLTAGE (KV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
210	0010 1110	3241.25	3290.9	-0.6	-0.5	14.8	3297.0	-6.1
211	0010 1101	3256.88	3311.4	0.4	-0.1	20.5	3312.9	-1.4
212	0010 1100	3272.50	3325.4	0.6	0.6	14.0	3328.8	-3.3
213	0010 1011	3288.13	3340.8	-0.8	0.0	15.4	3344.6	-3.8
214	0010 1010	3303.75	3345.0	-0.7	-0.7	24.1	3360.5	4.5
215	0010 1001	3319.38	3370.3	-0.2	-0.3	13.3	3376.4	1.9
216	0010 1000	3335.00	3397.2	0.5	0.5	18.9	3392.3	4.9
217	0010 0111	3350.63	3401.7	0.4	0.3	4.5	3408.2	-6.5
218	0010 0110	3366.25	3421.3	-0.7	-0.1	19.6	3424.0	-2.8
219	0010 0101	3381.88	3443.8	-0.5	-0.5	22.5	3439.9	3.8
220	0010 0100	3397.50	3472.8	0.4	0.0	14.0	3455.8	2.0
221	0010 0011	3413.13	3467.9	0.6	0.5	10.1	3471.7	-3.8
222	0010 0010	3428.75	3495.0	-0.4	0.3	27.1	3487.6	7.4
223	0010 0001	3444.38	3506.3	-1.2	-0.7	11.3	3503.4	7.8
224	0010 0000	3460.00	3523.1	-0.7	0.6	16.8	3519.3	3.7
225	0001 1111	3475.63	3529.6	0.8	0.2	6.5	3535.2	-5.6
226	0001 1110	3491.25	3545.9	0.5	0.6	16.4	3551.1	-5.1
227	0001 1101	3506.88	3570.9	-0.5	-0.1	24.9	3567.0	3.9
228	0001 1100	3522.50	3579.6	-0.6	-0.4	8.7	3582.8	-3.3
229	0001 1011	3538.13	3597.1	-0.3	-0.2	17.5	3598.7	-1.7
230	0001 1010	3553.75	3620.1	0.4	0.5	23.0	3614.6	5.5
231	0001 1001	3569.38	3634.4	1.0	0.5	14.3	3630.5	3.9
232	0001 1000	3585.00	3646.0	0.7	1.0	11.5	3646.4	-0.4
233	0001 0111	3600.63	3658.8	-0.7	-0.4	12.8	3662.3	-3.5
234	0001 0110	3616.25	3676.7	0.7	0.1	17.9	3678.1	-1.5
235	0001 0101	3631.88	3699.9	-3.1	0.4	23.2	3694.0	5.9
236	0001 0100	3647.50	3711.5	-0.1	0.4	11.6	3709.9	1.6

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OF POOR QUALITY

HS-201 THERMATIC MACHIN MUX UNIT TEST MODEL 11 PLT. S/N 3 PAGE 271

1981/11/30 12:00:15 PENALTY FULL PERFORMANCE PLANT UNIT TEST.

11/30/81 12:00:15 2010 THERMATIC MUX UNIT TEST PLANT UNIT TEST 2. SENSITIVE?

HAC
TEST
S27

REV 30 81

THERMATIC MUX UNIT TEST NUMBER	A/D OUTPUT THRESHOLD	DIGITAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3725.4	-0.6	-0.4	13.9	3725.8	-0.4
238	0001 0010	3678.75	3752.2	-0.7	-0.4	26.8	3741.7	10.6
239	0001 0001	3694.38	3762.8	1.0	0.6	10.6	3717.5	5.3
240	0001 0000	3710.00	3783.7	0.4	0.5	20.9	3773.4	10.3
241	0000 1111	3725.63	3787.1	0.3	0.9	3.4	3789.3	-2.2
242	0000 1110	3741.25	3803.5	-0.8	0.4	16.4	3805.2	-1.7
243	0000 1101	3756.88	3821.2	2.3	2.1	21.7	3821.1	4.2
244	0000 1100	3772.50	3838.2	0.4	0.6	12.9	3836.9	1.2
245	0000 1011	3788.13	3854.8	0.3	0.4	15.7	3852.8	1.0
246	0000 1010	3803.75	3872.0	-0.7	0.1	24.1	3868.7	9.3
247	0000 1001	3819.38	3892.5	-0.9	-0.7	14.5	3884.6	7.9
248	0000 1000	3835.00	3912.7	0.5	0.1	20.2	3900.5	12.3
249	0000 0111	3850.63	3915.3	0.5	0.8	2.5	3916.4	-1.0
250	0000 0110	3866.25	3934.1	-0.1	0.2	13.7	3932.2	1.8
251	0000 0101	3881.88	3952.6	-4.1	-0.4	23.5	3948.1	9.4
252	0000 0100	3897.50	3972.5	-0.7	-0.5	15.0	3964.0	8.5
253	0000 0011	3913.13	3982.7	0.1	0.2	10.2	3979.9	2.9
254	0000 0010	3928.75	4009.7	0.1	0.6	26.9	3995.8	13.9
255	0000 0001	3944.38	4021.6	-0.3	0.4	11.9	4011.6	9.9

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REV 30 81

HS-736 THEMATIC MAPPER BOX UNIT TEST MODEL: FIT, S/N 3 PAGE 272
1981/11/30 12:06:38 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
4.0-1.0-4 A/D THRESHOLD TEST (BAND= 2, SENSOR=3)
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= TURB INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

REF: FIT STRAIGHT LINE IS: Y =15.882X -39.7MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.648%
OFFSET IS:-39.7MV
COEFFICIENT OF DETERMINATION IS: RXX2= .99998490
ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR = 4.354MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
26.4MV	254	15.956MV	4.3MV	249	4.801MV

DIFFERENTIAL AT OUTPUT LEVEL: RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
2.8MV	207	-0.025MV	-5.0MV	241	.568MV

DIFFERENTIAL AT OUTPUT LEVEL: RATIO = 1 : 1

MAXIMUM	THRESHOLD #	AVERAGE	MINIMUM	THRESHOLD #	STANDARD DEVIATION
6.3MV	242	0.021MV	-2.4MV	75	.577MV

TEST PASSED

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OF POOR QUALITY

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 273
 1981/11/30 12:06:52 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
 01.11.14.5-8 0/15 THRESHOLD TEST (RAND= 27 SENSOR=3)



01 30 01

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TEST VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEVELS RATIO- 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LTNE POINT DEVIATION
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THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-29.7	-0.0	0.2		-23.8	-5.9
2	1111 1110	-8.750	-13.0	-0.3	-0.3	16.6	-7.9	-5.2
3	1111 1101	6.875	8.4	-0.2	0.1	21.5	8.0	0.5
4	1111 1100	22.500	22.2	-0.2	-0.1	13.8	23.9	-1.6
5	1111 1011	38.125	37.5	-0.0	-0.2	15.2	39.8	-2.3
6	1111 1010	53.750	58.1	0.0	0.2	20.7	55.6	2.5
7	1111 1001	69.375	74.1	0.1	0.2	13.0	71.5	2.6
8	1111 1000	85.000	85.9	-0.4	0.3	11.7	87.4	-1.5
9	1111 0111	100.625	98.7	-0.2	-0.1	12.9	103.3	-4.5
10	1111 0110	116.250	117.2	0.0	0.3	18.5	119.2	-1.9
11	1111 0101	131.875	136.4	1.1	0.4	19.2	135.1	1.4
12	1111 0100	147.500	154.0	-0.1	-0.1	17.6	150.9	0.1
13	1111 0011	163.125	165.5	-0.2	-0.1	11.4	166.8	-1.4
14	1111 0010	178.750	186.3	0.2	0.3	20.3	182.7	3.6
15	1111 0001	194.375	202.0	0.2	0.1	15.7	196.6	3.4
16	1111 0000	210.000	211.6	0.1	0.2	9.6	214.5	-2.8
17	1110 1111	225.625	226.0	-0.2	0.1	14.4	230.3	-4.3
18	1110 1110	241.250	242.3	0.3	0.3	16.3	246.2	1.9
19	1110 1101	256.875	263.2	-0.0	-0.1	21.4	252.1	1.6
20	1110 1100	272.500	279.3	-0.1	-0.6	15.5	278.0	1.7
21	1110 1011	288.125	292.6	0.2	0.3	13.3	294.9	-1.3
22	1110 1010	303.750	313.5	-0.7	0.1	20.9	309.8	3.8
23	1110 1001	319.375	330.1	-0.2	0.2	16.6	325.6	4.5
24	1110 1000	335.000	344.7	-0.3	0.1	14.6	341.5	3.2
25	1110 0111	350.625	353.8	0.1	0.3	9.1	357.4	-3.6

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HS-2716 THE MATIC HOTTER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 274

1981/11/30 12:06:12 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.11.13.15--FL AND THRESHOLD IS TEST CHANNEL 2, SENSITIVITY

THRESHOLD AND OUTPUT NUMBER	THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	366.250	372.9	-0.1	-0.2	19.1	373.3	-0.4
27	1110 0101	381.875	391.7	-0.2	-0.1	18.7	389.2	2.5
28	1110 0100	397.500	411.7	0.2	0.2	20.0	405.1	6.6
29	1110 0011	413.125	420.5	0.2	0.1	8.8	420.9	-0.5
30	1110 0010	428.750	441.8	-0.0	-0.0	21.3	436.8	1.9
31	1110 0001	444.375	457.2	-0.2	0.1	15.5	452.7	4.0
32	1110 0000	460.000	465.6	0.1	0.0	8.4	468.6	-3.0
33	1101 1111	475.625	481.6	0.0	-0.1	16.0	484.5	-2.9
34	1101 1110	491.250	497.5	-0.3	-0.2	15.9	500.3	-2.8
35	1101 1101	506.875	519.0	0.1	0.2	21.4	516.2	2.7
36	1101 1100	522.500	532.1	-0.1	0.0	19.1	532.1	-0.0
37	1101 1011	538.125	548.3	-0.2	-0.2	16.2	548.0	0.3
38	1101 1010	553.750	568.5	-0.1	0.0	20.2	563.9	4.6
39	1101 1001	569.375	585.4	0.1	0.3	16.9	579.8	5.7
40	1101 1000	585.000	598.6	0.0	0.9	13.2	595.6	3.0
41	1101 0111	600.625	609.3	-0.3	-0.2	10.7	611.5	-2.2
42	1101 0110	616.250	627.2	0.2	0.3	17.9	627.4	-0.2
43	1101 0101	631.875	646.7	0.1	-0.0	19.4	643.3	3.4
44	1101 0100	647.500	663.7	0.1	0.4	17.0	659.2	4.5
45	1101 0011	663.125	675.9	-0.3	-0.2	12.2	675.1	0.8
46	1101 0010	678.750	695.7	0.2	0.3	19.8	690.9	4.8
47	1101 0001	694.375	712.1	0.0	-0.2	16.4	706.8	5.3
48	1101 0000	710.000	725.0	0.1	0.0	12.9	722.7	2.3
49	1100 1111	735.625	735.6	0.2	0.3	10.6	738.6	-2.9
50	1100 1110	751.250	754.6	0.2	0.0	15.9	754.5	-2.9
51	1100 1101	766.875	773.0	-0.2	-0.2	21.5	770.4	2.2

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HS-236 THERMALIC GADGETR MUX UNIT TEST MODEL.. FL1. S/N 3 PAGE 275

1981/1/30 12:06:02 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TEST 12.11-11 AND THRESHOLD TEST CHAND- 2, SENSOR-3

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TEST
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TESTED AND NUMBER	A/D OUTPUT THRESHOLD	DIGITAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
			LEVELS RATIO- NOMINAL	LOWER	UPPER		POINT	DEVIATION	
52	1100	1100	772.500	788.2	0.0	0.0	15.1	786.2	1.9
53	1100	1011	788.125	801.8	0.3	0.3	13.6	802.1	-0.3
54	1100	1010	803.250	822.3	-0.1	0.2	20.5	818.0	-4.1
55	1100	1001	819.375	839.2	-0.1	0.0	14.9	833.9	5.3
56	1100	1000	835.000	857.1	0.0	0.0	17.9	849.8	7.3
57	1100	0111	850.625	862.5	0.3	0.1	5.4	865.6	-3.1
58	1100	0110	866.250	881.0	-0.2	0.2	18.4	881.5	-0.5
59	1100	0101	881.875	899.9	-0.1	0.0	18.9	897.4	2.5
60	1100	0100	897.500	919.4	0.2	0.3	19.5	913.3	6.1
61	1100	0011	913.125	928.8	0.0	-0.2	9.4	929.2	-0.4
62	1100	0010	928.750	949.2	-0.2	-0.1	20.4	945.1	4.1
63	1100	0001	944.375	964.8	0.3	0.3	15.6	960.9	3.9
64	1100	0000	960.000	973.9	-0.0	-0.2	9.1	976.8	-2.9
65	1011	1111	975.625	990.8	-0.2	-0.2	14.9	992.7	-1.9
66	1011	1110	991.250	1006.4	-0.2	0.0	15.6	1008.6	-2.2
67	1011	1101	1006.875	1027.9	1.9	1.7	21.5	1024.5	3.4
68	1011	1100	1022.500	1041.6	-0.2	0.4	13.7	1040.4	1.2
69	1011	1011	1038.125	1057.0	-0.4	-0.2	15.4	1056.2	0.7
70	1011	1010	1053.750	1077.2	0.0	0.1	20.3	1072.1	5.1
71	1011	1001	1069.375	1094.0	0.0	0.0	16.8	1083.0	6.0
72	1011	1000	1085.000	1103.4	0.3	0.3	9.4	1103.9	-0.5
73	1011	0111	1100.625	1117.6	-0.3	-0.0	14.1	1119.8	-2.2
74	1011	0110	1116.250	1135.2	0.3	0.2	17.6	1125.6	-0.4
75	1011	0101	1131.875	1157.0	-2.3	-2.4	21.0	1151.5	5.5
76	1011	0100	1147.500	1171.2	-0.2	-0.2	14.1	1172.4	3.8
77	1011	0011	1163.125	1183.2	0.2	0.2	12.1	1183.3	-0.0
78	1011	0010	1178.750	1203.3	0.3	0.1	20.0	1199.2	4.1

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HS-23A THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 276

1201121700 12:06102 FINALTY FULL PERFORMANCE @ AMBIENT TEMP.

11.12.13.14-15 AND THREE SHOT 13 TEST CHANNEL= 2. SENSOR=4

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TEST
527

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OF POOR QUALITY

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV) LEADING RATIO= 1 : 1			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
79	1011 0001	1194.38	1219.8	-0.1	-0.3	16.5	1215.1 4.8
80	1011 0000	1210.00	1230.2	0.3	0.1	10.4	1230.9 -0.7
81	1010 1111	1225.63	1243.6	0.4	0.1	13.4	1246.8 -3.2
82	1010 1110	1241.25	1259.3	-0.0	0.0	15.7	1262.7 -3.4
83	1010 1101	1256.88	1282.4	-0.3	-0.3	23.1	1278.6 3.8
84	1010 1100	1272.50	1294.8	0.1	0.0	12.3	1294.5 0.3
85	1010 1011	1288.13	1309.4	0.0	0.2	14.7	1310.4 -0.9
86	1010 1010	1303.75	1330.4	-0.1	-0.0	20.9	1326.2 4.1
87	1010 1001	1319.38	1346.6	-0.1	-0.0	16.7	1342.1 4.5
88	1010 1000	1335.00	1340.6	0.3	0.3	13.9	1358.0 2.6
89	1010 0111	1350.63	1370.2	0.0	-0.4	9.6	1373.9 -3.7
90	1010 0110	1366.25	1388.3	-0.1	-0.1	18.1	1389.8 -1.5
91	1010 0101	1381.88	1409.2	0.3	-2.3	21.0	1405.7 3.6
92	1010 0100	1397.50	1425.6	0.5	0.0	16.4	1421.5 4.1
93	1010 0011	1413.13	1434.3	-0.8	-0.4	10.6	1437.4 -1.1
94	1010 0010	1428.75	1456.0	0.0	0.1	19.7	1453.3 2.7
95	1010 0001	1444.38	1472.7	0.2	0.1	16.7	1469.2 3.5
96	1010 0000	1460.00	1486.2	-0.1	-0.0	13.5	1485.1 1.1
97	1001 1111	1475.63	1496.5	-0.3	-0.2	10.3	1500.9 -4.5
98	1001 1110	1491.25	1511.2	0.2	0.3	14.7	1516.8 -5.6
99	1001 1101	1506.88	1533.1	-0.1	0.0	21.9	1532.7 0.4
100	1001 1100	1522.50	1544.6	0.2	0.1	11.4	1548.6 -4.0
101	1001 1011	1538.13	1562.3	-0.1	0.3	17.7	1564.5 -2.2
102	1001 1010	1553.75	1582.2	0.0	0.0	19.9	1580.4 1.9
103	1001 1001	1569.38	1599.2	0.1	0.0	16.9	1596.2 2.9
104	1001 1000	1585.00	1611.3	0.6	0.6	12.1	1612.1 -0.8

10-236 THERMATIC MAPPER BOX UNIT TEST MODEL 1.1.1. S/N 3 PAGE 277

1981/11/30 12:06:52 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

11-11-81 AND THRESHOLD TEST (AND) 2. SENSORS



REV 30 W

THRESHOLD AND OUTPUT		IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
NUMBER	THRESHOLD		NOMINAL	LOWER	UPPER		POINT	DEVIATION
106	1001 0111	1600.63	1622.7	0.3	0.4	11.4	1623.0	-5.4
106	1101 0110	1615.25	1640.0	0.2	0.1	12.1	1643.9	-3.9
107	1001 0101	1631.88	1659.7	-0.1	0.0	19.7	1659.8	-0.1
108	1001 0100	1637.50	1676.9	-0.3	0.0	17.2	1675.2	1.2
109	1001 0011	1663.13	1688.8	0.4	0.4	11.9	1691.5	-2.7
110	1001 0010	1678.25	1711.7	0.2	0.0	22.9	1707.4	4.3
111	1001 0001	1694.38	1725.6	-0.0	-0.1	13.9	1723.3	2.3
112	1001 0000	1710.50	1738.7	-0.1	-0.1	13.1	1739.2	-0.4
113	1000 1111	1725.63	1748.5	0.2	0.1	9.8	1755.1	-6.6
114	1000 1110	1741.25	1763.8	-0.1	-0.1	15.3	1770.9	-7.2
115	1000 1101	1756.88	1785.3	0.0	-0.1	21.5	1785.8	-1.6
116	1000 1100	1772.50	1799.6	-0.1	-0.1	14.3	1802.7	-3.2
117	1000 1011	1788.13	1814.6	0.1	-0.1	15.0	1818.6	-4.0
118	1000 1010	1803.25	1835.0	-0.0	0.0	20.4	1834.5	0.5
119	1000 1001	1819.38	1851.5	-0.1	-0.1	16.5	1850.4	1.1
120	1000 1000	1835.00	1868.9	0.6	0.2	17.4	1866.2	2.2
121	1000 0111	1850.63	1875.1	-0.2	-0.3	6.2	1882.1	-7.0
122	1000 0110	1866.25	1892.4	-0.1	0.1	17.3	1898.0	-5.6
123	1000 0101	1881.88	1911.6	-0.1	-0.0	19.2	1913.9	-2.3
124	1000 0100	1897.50	1930.6	-0.4	-0.3	19.0	1929.8	0.3
125	1000 0011	1913.13	1940.0	-0.3	-0.2	10.2	1945.7	-4.8
126	1000 0010	1928.25	1963.8	0.0	0.1	23.0	1961.5	2.3
127	1000 0001	1944.38	1977.5	-0.0	-0.1	13.7	1977.4	0.1
128	1000 0000	1960.50	1986.7	-0.1	-0.3	11.1	1993.3	-4.6
129	0111 1111	1975.63	2004.3	-0.1	0.2	11.7	2009.2	-4.8
130	0111 1110	1991.25	2020.9	0.3	0.2	16.5	2025.1	-3.2

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HS 226 DEDICATED MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 278
 1981/11/30 12:06:52 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 01.01.11.5-14 AND THRESHOLD TEST (RANGE= 2. SENSOR=3)

HAC
TEST
527

01/30/81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2044.7	0.1	-0.0	2039	3.8
132	0111 1100	2022.50	2057.8	0.6	0.4	2054.8	1.0
133	0111 1011	2038.13	2069.9	0.5	0.4	2072.7	-2.8
134	0111 1010	2053.75	2092.8	0.0	-0.1	2098.6	4.2
135	0111 1001	2069.38	2110.2	-0.3	-0.3	2104.5	5.7
136	0111 1000	2085.00	2117.3	0.3	0.3	2120.4	-3.0
137	0111 0111	2100.63	2130.6	0.3	0.6	2136.2	-5.7
138	0111 0110	2116.25	2150.0	0.1	-0.1	2152.1	-2.2
139	0111 0101	2131.88	2171.1	0.2	0.5	2168.0	3.1
140	0111 0100	2147.50	2186.7	0.2	0.3	2183.9	2.8
141	0111 0011	2163.13	2196.7	0.4	0.0	2199.8	-3.1
142	0111 0010	2178.75	2217.9	-0.2	-0.2	2215.7	2.3
143	0111 0001	2194.38	2233.3	-0.4	-0.0	2231.5	1.7
144	0111 0000	2210.00	2241.8	-0.1	-0.2	2247.4	-5.6
145	0110 1111	2225.63	2256.9	-0.0	-0.2	2263.3	-6.4
146	0110 1110	2241.25	2273.6	-0.2	-0.1	2279.2	-5.6
147	0110 1101	2256.88	2297.0	0.3	0.3	2295.1	1.9
148	0110 1100	2272.50	2309.9	0.1	-0.0	2311.0	-1.1
149	0110 1011	2288.13	2327.8	-0.4	-0.3	2326.8	-4.0
150	0110 1010	2303.75	2346.0	-0.1	0.0	2342.7	3.3
151	0110 1001	2319.38	2369.9	2.6	2.7	2358.6	1.3
152	0110 1000	2335.00	2374.8	0.0	-0.3	2374.5	0.3
153	0110 0111	2350.63	2383.4	-0.3	-0.2	2390.4	-6.9
154	0110 0110	2366.25	2407.2	0.2	0.3	2406.2	-4.1
155	0110 0101	2381.88	2423.9	0.1	0.0	2427.1	1.7
156	0110 0100	2397.50	2443.7	-0.3	-0.2	2438.0	5.7
157	0110 0011	2413.13	2449.1	-0.1	0.1	2453.9	-4.8

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HS-230 THERMAL GATTER MAX UNIT TEST MODEL 1.1 FL. S2R 3 PAGE 279
 1931/11/30 1210A:02 PENALTY FIRE PERFORMANCE @ AMBIENT TEMP.
 1931/11/30 1210A:02 THERMAL GATTER MAX UNIT TEST MODEL 1.1 FL. S2R 3 PAGE 279

THRESHOLD NUMBER	OLD INPUT THRESHOLD	THERMAL UNIT (1.1)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
158	0110 0010	2428.75	2470.3	0.2	0.3	21.2	2469.8	0.5
159	0110 0001	2444.38	2486.5	2.4	-0.3	16.2	2485.7	0.9
160	0110 0050	2460.00	2498.4	-0.1	-1.1	11.9	2501.5	-3.1
161	0101 1111	2475.63	2509.7	0.2	0.4	11.3	2517.4	-7.7
162	0101 1110	2491.25	2525.9	0.2	0.1	15.2	2531.3	-7.4
163	0101 1101	2506.88	2550.5	-0.2	-0.1	24.6	2549.2	1.3
164	0101 1100	2522.50	2560.1	0.0	-0.4	9.5	2565.1	-5.0
165	0101 1011	2538.13	2575.7	0.3	0.5	15.6	2581.0	-5.3
166	0101 1010	2553.75	2598.1	-0.1	-0.0	22.4	2596.8	1.3
167	0101 1001	2569.38	2615.7	-2.4	-0.1	17.6	2612.7	3.0
168	0101 1000	2585.00	2626.0	-0.2	-0.3	10.3	2628.6	-2.6
169	0101 0111	2600.63	2636.5	0.2	0.0	10.5	2644.5	-7.9
170	0101 0110	2616.25	2655.2	-0.3	-0.2	18.7	2660.4	-5.1
171	0101 0101	2631.88	2677.1	0.1	0.2	21.9	2676.2	0.9
172	0101 0100	2647.50	2693.1	0.0	0.1	16.0	2692.1	1.0
173	0101 0011	2663.13	2707.6	0.0	-0.1	9.5	2708.0	-5.4
174	0101 0010	2678.75	2727.8	-0.1	0.2	25.2	2713.9	3.9
175	0101 0001	2694.38	2742.0	-2.2	1.6	14.1	2739.8	2.2
176	0101 0000	2710.00	2756.1	-0.6	0.0	14.1	2751.7	0.4
177	0100 1111	2725.63	2763.0	0.4	-0.2	6.9	2771.5	-8.6
178	0100 1110	2741.25	2779.1	-0.2	0.0	15.1	2787.4	3.3
179	0100 1101	2756.88	2802.9	0.1	0.2	21.0	2803.3	-0.4
180	0100 1100	2772.50	2815.1	0.0	0.1	12.1	2819.2	-1.1
181	0100 1011	2788.13	2828.7	-0.3	-0.3	13.6	2835.1	6.3
182	0100 1010	2803.75	2851.3	0.5	0.1	22.6	2851.0	0.3
183	0100 1001	2819.38	2869.4	-0.2	-0.8	19.1	2866.8	2.6

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HS-236 THERMOTIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 280

1981/11/30 12:06:52 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TEST 1: 100% AND THRESHOLD TEST CHANNEL 2, SENSOR=2

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (AV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
184 0100 1000	2887.00	2885.2	-0.4	-0.4	15.7	2882.7	2.4
185 0100 0111	2890.63	2889.6	-0.2	0.1	4.4	2898.6	-9.0
186 0100 0110	2866.25	2907.9	0.2	0.0	18.3	2914.5	-6.6
187 0100 0101	2881.88	2930.1	-0.1	-0.2	22.2	2930.4	-0.2
188 0100 0100	2897.50	2950.2	0.1	0.1	20.1	2946.2	4.0
189 0100 0011	2913.13	2955.0	0.3	0.4	4.7	2962.1	-7.1
190 0100 0010	2928.75	2975.9	0.1	0.2	20.9	2978.0	-2.2
191 0100 0001	2944.38	2992.6	-0.1	-0.2	16.7	2993.9	-1.3
192 0100 0000	2960.00	3003.3	-0.1	-0.1	10.7	3009.8	-6.5
193 0011 1111	2975.63	3017.4	0.3	0.4	14.2	3025.7	-8.2
194 0011 1110	2991.25	3033.9	-0.1	-0.1	16.5	3041.5	-7.6
195 0011 1101	3006.88	3058.5	-0.1	0.1	24.6	3057.4	1.0
196 0011 1100	3022.50	3070.8	-0.6	-0.7	12.3	3073.3	-2.5
197 0011 1011	3038.13	3083.6	0.3	0.1	12.8	3089.2	-5.5
198 0011 1010	3053.75	3106.5	-0.1	-0.1	22.8	3105.1	1.4
199 0011 1001	3069.38	3124.0	-0.2	0.1	12.5	3121.0	3.0
200 0011 1000	3085.00	3130.7	-0.0	-0.1	6.7	3136.8	-6.2
201 0011 0111	3100.63	3145.1	-0.1	-0.3	14.4	3152.7	-7.6
202 0011 0110	3116.25	3163.6	-0.2	0.0	18.4	3168.6	-5.0
203 0011 0101	3131.88	3185.8	0.5	0.5	22.2	3184.5	1.3
204 0011 0100	3147.50	3200.7	-0.2	-0.2	14.9	3200.4	0.4
205 0011 0011	3163.13	3211.4	-0.3	-0.2	10.7	3216.3	-4.8
206 0011 0010	3178.75	3237.1	-0.1	0.1	25.7	3232.1	5.0
207 0011 0001	3194.38	3248.7	2.8	2.8	11.6	3248.0	0.7
208 0011 0000	3210.00	3258.4	-0.0	0.3	9.7	3263.9	-5.5
209 0010 1111	3225.63	3272.1	-0.3	-0.2	13.8	3279.8	-7.6

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TEST STEP ID NUMBER	A/D OUTPUT THRESHOLD	DETAILED VALUE (mV)	ANALOG INPUT VOLTAGE (mV)		INCREASE FROM PREVIOUS THRESHOLD	14 BIT FIT STRAIGHT LINE		
			NOMINAL	LOWER		POINT	DEVIATION	
210	0010 1110	3241.25	3288.2	0.2	0.3	16.0	3295.7	-2.5
211	0010 1101	3256.88	3312.9	0.1	0.1	24.7	3311.5	1.4
212	0010 1100	3272.50	3324.6	-0.2	0.1	11.7	3327.4	-2.8
213	0010 1011	3288.13	3338.6	-0.3	0.1	14.0	3343.3	-4.2
214	0010 1010	3303.75	3361.5	-0.0	0.1	22.9	3359.2	2.3
215	0010 1001	3319.38	3378.3	-0.1	-0.1	17.2	3375.1	3.2
216	0010 1000	3335.00	3391.6	-0.5	-0.4	12.8	3391.0	0.2
217	00 0 0111	3350.63	3399.6	0.2	0.4	3.0	3406.8	-7.2
218	0010 0110	3366.25	3418.8	0.1	0.1	19.1	3422.7	-4.0
219	0010 0101	3381.88	3441.3	-0.2	-0.2	22.5	3438.6	2.2
220	0010 0100	3397.50	3460.3	-0.1	-0.0	19.0	3454.5	5.8
221	0010 0011	3413.13	3466.6	0.3	0.2	6.4	3470.4	-3.2
222	0010 0010	3428.75	3492.9	-0.1	0.1	26.1	3486.3	6.6
223	0010 0001	3444.38	3507.8	-0.1	-0.1	14.1	3502.1	4.9
224	0010 0000	3460.00	3519.8	-0.1	0.1	12.2	3518.0	1.8
225	0001 1111	3475.63	3528.3	0.1	0.1	8.6	3533.9	-5.6
226	0001 1110	3491.25	3545.4	-0.5	-0.5	17.0	3549.8	-4.4
227	0001 1101	3506.88	3569.3	-0.1	0.1	23.9	3565.2	3.2
228	0001 1100	3522.50	3577.2	-0.1	-0.4	7.9	3581.5	-4.4
229	0001 1011	3538.13	3595.2	-0.0	-0.1	18.0	3597.4	-2.3
230	0001 1010	3553.75	3617.2	-0.2	1.1	22.0	3613.3	3.9
231	0001 1001	3569.38	3637.2	0.1	0.2	20.0	3629.2	8.0
232	0001 1000	3585.00	3645.2	-0.3	0.2	8.0	3645.1	0.1
233	0001 0111	3600.63	3657.1	-0.4	-0.2	11.9	3661.0	-3.9
234	0001 0110	3616.25	3675.1	-0.2	0.1	18.0	3676.8	-1.8
235	0001 0101	3631.88	3698.0	0.1	0.2	22.9	3692.7	5.2
236	0001 0100	3647.50	3713.3	-0.1	-0.1	15.4	3708.6	4.2

100 235 THERMAL METER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 282

1981/11/10 12:04:12 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

14.11.14.17-33 2010 THERMAL MIX UNIT TEST (RANGE 2) SENSORS

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THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FLT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
237 0001 0011	3663.13	3723.8	-0.3	-0.2	10.5	3724.5	-0.7
238 0001 0010	3628.75	3749.2	-0.2	0.1	25.4	3740.4	8.8
239 0001 0001	3694.38	3764.1	1.6	1.5	15.0	3756.3	7.9
240 0001 0000	3710.00	3779.6	0.4	0.6	15.4	3772.1	7.5
241 0000 1111	3725.63	3790.4	-5.0	0.0	10.8	3788.0	2.4
242 0000 1110	3741.25	3800.8	0.1	6.3	10.4	3803.9	-3.1
243 0000 1101	3756.88	3826.0	-0.1	0.1	25.2	3819.8	6.3
244 0000 1100	3772.50	3837.0	-0.2	0.0	11.0	3835.7	1.3
245 0000 1011	3788.13	3852.0	0.2	0.4	15.0	3851.5	0.4
246 0000 1010	3803.75	3874.6	-0.1	0.0	22.6	3867.4	7.2
247 0000 1001	3819.38	3894.2	-0.3	-0.2	19.6	3887.3	10.9
248 0000 1000	3835.00	3909.6	-0.5	-0.0	15.4	3899.2	10.4
249 0000 0111	3850.63	3913.2	0.3	0.4	4.3	3915.1	-1.2
250 0000 0110	3866.25	3932.3	-0.1	0.1	18.4	3931.0	1.3
251 0000 0101	3881.88	3955.3	-0.3	0.0	23.0	3946.8	8.4
252 0000 0100	3897.50	3974.9	0.1	0.4	19.2	3962.7	12.2
253 0000 0011	3913.13	3981.0	0.2	0.1	6.0	3978.6	2.4
254 0000 0010	3928.75	4007.3	-0.4	-0.1	26.4	3994.5	12.9
255 0000 0001	3944.38	4023.2	0.1	0.1	15.9	4010.4	12.9

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HS-234 THERMAL MONITOR MIX UNIT TEST MODEL.. FTL S/N 3 PAGE 267

1901/11/30 12:13:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

RECEIVED FROM THE OFFICE OF THE TEST CHAND- 2 - HENSIDE-4



BY 30 78

THIS SHEET IS A/D OUTPUT NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
26	1110 0110	355.250	376.0	-0.2	-0.3	20.2	375.9	0.0
27	1110 0101	381.875	393.8	0.2	0.3	17.8	391.8	2.0
28	1110 0100	397.500	414.7	0.2	-0.5	20.9	407.7	2.0
29	1110 0011	413.125	422.7	0.0	-0.3	8.0	423.6	-0.8
30	1110 0010	428.750	444.7	-0.2	-0.2	21.9	439.4	5.2
31	1110 0001	444.375	459.1	-0.1	0.1	14.4	455.3	3.2
32	1110 0000	460.000	470.9	0.2	0.2	11.8	471.2	-0.3
33	1101 1111	475.625	483.7	-0.1	0.0	12.8	487.1	-3.4
34	1101 1110	491.250	500.4	-0.2	-0.3	16.7	504.0	-2.5
35	1101 1101	506.875	521.8	-0.2	-0.3	21.4	518.8	3.0
36	1101 1100	522.500	534.4	0.2	0.2	12.5	531.7	-0.4
37	1101 1011	538.125	550.0	0.0	0.0	15.6	550.6	-0.6
38	1101 1010	553.750	571.2	-0.3	-0.0	21.2	566.5	4.7
39	1101 1001	569.375	586.8	0.2	-0.1	15.6	582.4	4.5
40	1101 1000	585.000	599.1	-0.0	-0.3	12.3	598.2	0.2
41	1101 0111	600.625	611.0	0.1	0.2	11.9	614.1	-3.1
42	1101 0110	616.250	630.1	-0.0	0.5	19.0	630.0	0.1
43	1101 0101	631.875	649.7	-0.2	-0.1	19.6	645.9	3.8
44	1101 0100	647.500	666.4	0.1	0.1	16.7	661.8	3.3
45	1101 0011	663.125	677.5	0.4	-0.0	11.1	677.6	-0.1
46	1101 0010	678.750	701.0	-0.1	0.1	23.5	692.5	2.5
47	1101 0001	694.375	714.1	-0.3	-0.0	13.1	709.4	4.7
48	1101 0000	710.000	726.8	-0.3	-0.3	12.6	725.3	1.5
49	1100 1111	725.625	737.8	-0.0	-0.1	11.0	741.2	-3.4
50	1100 1110	741.250	754.5	0.1	0.2	16.7	757.0	-2.6
51	1100 1101	756.875	775.7	0.1	0.1	21.2	772.9	2.7

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HS-226 THERMATIC BOILER MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 286

1981/11/30 12:13:28 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

TEST LOG FILE # 13 55/200 THERMATIC MIX UNIT TEST IF (CLONE) = 12 * SENSOR = 1

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THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
52 1100 1100	772.500	790.3	-0.2	0.0	14.4	788.8	1.5
53 1100 1011	788.125	804.0	-0.1	-0.1	13.8	804.7	-0.6
54 1100 1010	803.750	825.5	-0.0	-0.2	21.4	820.6	4.9
55 1100 1001	819.375	841.7	0.0	0.0	16.7	836.5	5.3
56 1100 1000	835.000	858.9	0.0	0.3	17.1	852.3	6.5
57 1100 0111	850.625	864.8	-0.0	-0.0	5.9	868.7	-3.5
58 1100 0110	866.250	884.0	-0.3	-0.2	19.2	884.1	-0.1
59 1100 0101	881.875	902.5	0.2	0.0	18.4	900.0	2.5
60 1100 0100	897.500	921.9	0.2	0.3	19.4	915.9	6.0
61 1100 0011	913.125	930.7	-0.0	0.0	8.8	931.7	-1.1
62 1100 0010	928.750	952.2	-0.2	-0.2	21.5	947.6	4.4
63 1100 0001	944.375	967.0	0.0	-0.0	14.8	963.5	3.5
64 1100 0000	960.000	976.0	0.2	0.3	9.0	979.4	-3.4
65 1011 1111	975.625	992.9	-0.1	-0.1	14.9	995.3	-2.3
66 1011 1110	991.250	1009.4	-0.2	0.0	16.5	1011.1	-1.7
67 1011 1101	1006.875	1030.8	-0.2	0.0	21.4	1027.0	3.7
68 1011 1100	1022.500	1045.1	-0.2	-0.3	14.3	1042.9	2.2
69 1011 1011	1038.125	1058.8	0.3	0.1	13.7	1058.8	0.0
70 1011 1010	1053.750	1081.0	0.1	0.3	22.2	1074.7	6.3
71 1011 1001	1069.375	1096.4	-0.1	-0.1	15.5	1090.5	5.9
72 1011 1000	1085.000	1106.0	-1.7	1.6	9.5	1106.4	-0.4
73 1011 0111	1100.625	1119.7	0.1	-0.1	11.7	1122.3	-2.6
74 1011 0110	1116.250	1138.3	0.3	0.2	18.5	1138.2	0.1
75 1011 0101	1131.875	1157.2	-0.0	0.0	15.9	1154.1	3.1
76 1011 0100	1147.500	1174.4	-0.4	-0.4	17.2	1169.9	4.5
77 1011 0011	1163.125	1187.4	0.0	0.3	11.0	1185.8	-0.4
78 1011 0010	1178.750	1209.7	0.2	0.2	24.3	1201.7	8.0

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HS-236 THERMOC MAFER MIX UNTIL TEST MODEL 1. FLT. S/N 3 PAGE 287

1981/11/10 1213:23 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

11.12 11.12-11 2010 THREE SECONDS TEST (FIND)= 2, SENSOR=4 00 30 21

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)		INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
			NOMINAL	LOWER		POINT	DEVIATION	
79	1011 0001	1194.98	1221.7	0.0	0.0	12.0	1217.6	4.1
80	1011 0000	1210.00	1232.0	-0.1	-0.0	10.3	1233.5	-1.5
81	1010 1111	1225.63	1245.9	-0.5	-0.5	11.9	1249.3	-3.4
82	1010 1110	1241.25	1262.1	0.0	-0.2	16.2	1265.2	-3.1
83	1010 1101	1256.88	1283.2	0.1	0.1	21.0	1281.1	2.1
84	1010 1100	1272.50	1296.7	0.0	0.2	13.5	1297.0	-0.3
85	1010 1011	1288.13	1311.4	-0.1	0.2	14.7	1312.9	-1.5
86	1010 1010	1303.75	1333.2	-0.1	-0.3	21.7	1328.7	4.4
87	1010 1001	1319.38	1349.0	-0.0	-0.1	15.9	1344.6	4.4
88	1010 1000	1335.00	1363.5	0.1	0.3	14.5	1360.5	3.0
89	1010 0111	1350.63	1371.9	0.0	0.0	8.4	1376.4	-4.5
90	1010 0110	1366.25	1391.0	-0.2	-0.0	19.0	1392.3	-1.3
91	1010 0101	1381.88	1409.9	0.2	0.1	19.0	1408.2	1.8
92	1010 0100	1397.50	1430.1	-0.1	0.2	20.1	1414.0	6.1
93	1010 0011	1413.13	1437.2	0.1	0.0	7.6	1439.9	-2.2
94	1010 0010	1428.75	1459.1	-0.2	0.0	21.3	1455.8	3.3
95	1010 0001	1444.38	1474.0	1.3	1.1	14.9	1471.7	2.3
96	1010 0000	1460.00	1489.9	0.0	-0.3	15.9	1487.6	2.3
97	1001 1111	1475.63	1498.5	-0.1	-0.1	8.6	1503.4	-1.9
98	1001 1110	1491.25	1514.3	-0.1	0.2	15.7	1519.3	-5.1
99	1001 1101	1506.88	1536.3	-0.1	-0.1	22.0	1531.2	1.1
100	1001 1100	1522.50	1548.8	0.1	-1.6	12.5	1541.1	-2.3
101	1001 1011	1538.13	1564.7	0.0	0.0	15.9	1567.0	-2.3
102	1001 1010	1553.75	1585.1	0.2	0.2	20.4	1582.8	2.3
103	1001 1001	1569.38	1602.2	0.2	0.2	17.1	1598.7	3.5
104	1001 1000	1585.00	1617.0	-0.1	-0.4	14.8	1614.6	2.4

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HS-24 LIBRARY MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 288

1981/11/10 12113128 FREQUENCY FULL PERFORMANCE @ AMBIENT TEMP.

3411.11.15-11 1015 THRESHOLD TO TEST CHANNELS -- 24 SENSITIVITY=4

NO 30 51

THRESHOLD NUMBER	AND OUTPUT THRESHOLD	IDEAL VALUE (KHZ)	ANALOG INPUT VOLTAGE (V)			IN PLACE FROM FREQ THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
101	1001 0111	1600.63	1625.4	0.0	-0.0	8.5	1630.5	-5.1
106	1001 0110	1616.25	1643.1	0.4	0.4	17.7	1646.4	-3.3
107	1001 0101	1631.88	1667.9	0.1	0.0	19.8	1667.2	0.7
109	1001 0100	1647.50	1679.4	-0.0	0.0	16.5	1678.1	1.3
119	1001 0011	1663.13	1691.0	0.0	-0.1	11.6	1694.0	-3.0
115	1001 0010	1678.75	1714.8	-0.1	-0.3	21.7	1709.9	4.9
111	1001 0001	1694.38	1728.2	0.5	0.0	10.4	1725.8	2.4
112	1001 0010	1710.90	1741.1	-0.0	0.3	12.9	1741.6	-0.6
117	1000 1111	1726.63	1750.8	-0.1	0.2	9.7	1757.5	-6.7
114	1000 1110	1741.25	1767.0	-0.2	-0.3	16.2	1773.4	-6.4
115	1000 1101	1756.88	1788.4	0.0	-0.2	21.4	1789.3	-0.9
116	1000 1100	1772.50	1801.6	0.1	0.1	13.2	1805.2	-3.6
117	1000 1011	1788.13	1816.7	-0.1	0.0	15.1	1821.0	-4.4
118	1000 1010	1803.75	1832.9	-0.3	-0.3	21.2	1836.9	0.2
119	1000 1001	1819.38	1854.4	-0.1	-0.2	16.5	1852.8	1.6
120	1000 1000	1835.00	1871.5	0.5	0.3	12.1	1848.7	2.8
121	1000 0111	1850.63	1877.1	0.1	0.1	5.6	1884.6	-7.5
122	1010 0110	1866.25	1895.6	-0.1	-0.0	18.5	1900.5	-4.9
123	1000 0101	1881.88	1914.9	-0.2	-0.3	19.3	1916.3	-1.4
124	1000 0100	1897.50	1932.9	0.0	-0.3	18.0	1932.2	0.7
125	1000 0011	1913.13	1943.1	-0.2	-0.0	10.1	1948.1	-5.0
126	1000 0010	1928.75	1966.9	-0.1	0.1	21.8	1964.0	3.0
127	1000 0001	1944.38	1980.7	-0.1	-0.1	13.8	1979.9	0.9
128	1000 0000	1960.00	1991.8	-0.4	-0.3	11.1	1995.7	-3.9
129	0111 1111	1976.63	2006.8	0.0	-0.0	14.9	2011.6	-4.9
130	0111 1110	1991.25	2023.8	0.4	0.3	12.1	2027.5	-3.7

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3.1.1.1-4 2/1 REFRESH 1 TEST (COND = 2, SENSIR=4) 0000

THRESHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VOLTAGE (MV)	ANALOG INPUT VOLTAGE LEVELS RATIO NOMINAL	INPUT VOLTAGE LEVELS RATIO ERROR	(MV) 1 : 1 DIFFER	INCREASE FROM FIFTH THRESHOLD	BEST FIT STRAIGHT LINE POINT	DEVIATION	
131	0111 1101	2006.88	2046.5	-0.0	-2.1	22.6	2043.4	3.1	
132	0111 1100	2022.50	2060.9	-0.2	-0.2	14.4	2059.3	1.6	
133	0111 1011	2038.13	2072.8	-0.1	-0.0	11.9	2075.1	-2.4	
134	0111 1010	2053.75	2095.4	0.2	0.3	22.6	2091.0	4.4	
135	0111 1001	2069.38	2110.0	0.1	0.1	14.6	2106.9	3.1	
136	0111 1000	2085.00	2125.3	-0.3	-0.0	15.3	2122.8	2.5	
137	0111 0111	2100.63	2133.5	-0.1	-0.1	8.1	2136.7	-5.2	
138	0111 0110	2116.25	2153.2	-0.0	-0.2	19.8	2154.5	-1.3	
139	0111 0101	2131.88	2170.7	0.1	0.1	17.5	2170.4	0.3	
140	0111 0100	2147.50	2189.1	0.1	0.1	18.4	2186.3	2.8	
141	0111 0011	2163.13	2199.4	-0.1	-0.0	10.2	2202.2	-2.8	
142	0111 0010	2178.75	2225.7	-0.3	-0.3	26.4	2218.1	7.7	
143	0111 0001	2194.38	2235.8	0.0	0.1	10.1	2233.9	1.9	
144	0111 0000	2210.00	2243.6	0.3	0.2	7.7	2249.8	-6.3	
.									
145	0110 1111	2225.63	2259.5	-0.1	0.0	16.0	2265.7	-6.2	
146	0110 1110	2241.25	2277.0	-0.2	-0.3	17.5	2281.6	-4.4	
147	0110 1101	2256.88	2299.2	0.0	0.0	22.2	2297.5	1.7	
148	0110 1100	2272.50	2312.1	0.2	0.2	12.8	2313.3	-1.3	
149	0110 1011	2288.13	2325.1	0.1	0.3	13.1	2329.2	-4.1	
150	0110 1010	2303.75	2340.3	-0.3	-0.0	23.7	2335.1	3.7	
151	0110 1001	2319.38	2362.8	-0.2	-0.1	17.9	2361.0	1.8	
152	0110 1000	2335.00	2377.5	-0.0	-0.3	14.7	2376.9	0.7	
153	0110 0111	2350.63	2386.0	0.1	-0.3	8.5	2392.8	-6.2	
154	0110 0110	2366.25	2405.6	-0.1	0.2	19.6	2408.6	-3.0	
155	0110 0101	2381.88	2423.3	3.2	3.2	17.6	2424.5	-1.2	
156	0110 0100	2397.50	2446.1	-0.1	-0.1	22.8	2440.4	5.7	
157	0110 0011	2413.13	2451.7	0.0	0.0	5.6	2456.3	-4.5	

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HS-23. THEMATIC MAPPER BOX UNIT TEST MODEL.. F.T. SWN 3 PAGE 291

1981/11/30 12:13:28 PENALTY FREE PERFORMANCE @ AMOUNT TIME.

1981/11/30 12:13:28 THEMATIC MAPPER BOX UNIT TEST MODEL.. F.T. SWN 3 PAGE 291

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NO 30 00

THRESHOLD AND OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MU)	ANALOG INPUT VOLTAGE (MV)			INCREASE THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
184	0100 1000	2885.00	2888.1	0.4	-0.3	2885.1	3.0
185	0100 0111	2885.63	2891.8	-0.2	-0.3	2908.9	-9.1
186	0100 0110	2886.25	2911.0	0.1	0.1	2916.8	-0.8
187	0100 0101	2886.88	2932.2	0.0	-0.1	2932.2	-0.0
188	0100 0100	2887.50	2953.1	-0.1	-0.2	2953.6	4.5
189	0100 0011	2913.13	2957.8	0.1	-0.3	2964.5	-6.7
190	0100 0010	2928.75	2984.2	0.0	0.2	2986.0	3.9
191	0100 0001	2944.38	2995.4	0.0	-0.1	2996.2	-0.9
192	0100 0000	2959.00	3006.1	-0.2	0.0	3012.1	-6.0
193	0011 1111	2975.63	3020.2	-0.4	-0.2	3026.0	-7.7
194	0011 1110	2991.25	3037.1	0.0	0.3	3043.9	-6.7
195	0011 1101	3006.88	3057.4	2.7	1.6	3059.2	-2.4
196	0011 1100	3022.50	3074.1	-0.1	0.2	3075.6	-1.5
197	0011 1011	3038.13	3086.2	-0.2	-0.2	3091.0	-0.3
198	0011 1010	3053.75	3109.2	0.0	0.6	3112.4	2.3
199	0011 1001	3069.38	3123.3	0.2	0.3	3123.3	0.1
200	0011 1000	3085.00	3139.2	-6.8	0.4	3139.1	0.1
201	0011 0111	3100.63	3147.3	-0.1	-0.0	3155.0	-7.8
202	0011 0110	3116.25	3166.2	-0.3	0.3	3170.9	-4.2
203	0011 0101	3131.88	3184.9	-0.1	-0.2	3186.8	1.9
204	0011 0100	3147.50	3204.0	0.1	0.3	3202.2	1.3
205	0011 0011	3163.13	3213.4	0.3	0.5	3216.5	-0.1
206	0011 0010	3178.75	3240.3	-0.4	-0.1	3239.4	0.9
207	0011 0001	3194.38	3250.1	-0.2	-0.1	3256.3	-0.3
208	0011 0000	3210.00	3260.4	0.1	0.1	3266.2	-5.8
209	0010 1111	3225.63	3274.2	0.2	0.2	3282.1	-7.8

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THRESHOLD NUMBER	A/D THRESHOLD	OUTPUT THRESHOLD	IDEAL VOLTAGE (MV)	ANALOG NOMINAL	INPUT VOLTAGE LEVELS RATIO- LOWER	(MV) 1:1 UPPER	INCREASE FROM IDEAL THRESHOLD	BEST FIT POINT	STRAIGHT LINE DEVIATION
210	0010	1110	3241.25	3291.5	-0.0	0.3	17.2	3297.9	-6.5
211	0010	1101	3256.88	3312.1	-0.2	2.3	20.7	3313.8	-1.7
212	0010	1100	3272.50	3326.7	-0.2	-0.2	14.6	3329.7	-3.0
213	0010	1011	3288.13	3340.7	0.1	0.0	13.9	3345.6	-4.9
214	0010	1010	3303.75	3355.5	0.0	0.1	24.9	3361.5	4.1
215	0010	1001	3319.38	3378.5	-0.1	0.1	12.9	3377.4	1.1
216	0010	1000	3335.00	3396.1	-1.8	-1.8	17.6	3393.2	2.9
217	0010	0111	3350.63	3407.5	0.1	-0.3	6.4	3409.1	-6.6
218	0010	0110	3366.25	3421.5	0.1	0.3	19.0	3425.0	-3.5
219	0010	0101	3381.88	3443.2	-3.3	-3.2	21.6	3440.9	2.3
220	0010	0100	3397.50	3462.9	-0.4	0.0	19.7	3456.8	6.2
221	0010	0011	3413.13	3468.6	-0.3	-0.1	5.7	3472.6	-4.8
222	0010	0010	3428.75	3495.8	0.1	0.0	27.1	3488.5	7.2
223	0010	0001	3444.38	3505.0	0.2	0.4	9.2	3504.4	0.6
224	0010	0000	3460.00	3523.1	-0.2	0.3	18.1	3520.3	2.8
225	0001	1111	3475.63	3530.4	-0.3	0.1	7.3	3536.2	-5.7
226	0001	1110	3491.25	3547.0	-0.4	-0.3	16.6	3552.0	-5.0
227	0001	1101	3506.88	3570.5	-2.2	0.0	23.4	3567.9	2.6
228	0001	1100	3522.50	3585.3	0.1	0.0	14.8	3583.8	1.5
229	0001	1011	3538.13	3597.4	-0.3	-0.0	12.0	3599.7	-2.3
230	0001	1010	3553.75	3620.6	-1.0	-0.8	23.2	3615.6	5.0
231	0001	1001	3569.38	3635.1	-0.1	-0.1	14.5	3631.4	3.7
232	0001	1000	3585.00	3645.5	0.1	0.3	10.4	3647.3	-1.8
233	0001	0111	3600.63	3658.9	-0.1	-0.1	13.4	3663.2	-4.3
234	0001	0110	3616.25	3677.9	-0.4	0.2	18.9	3679.1	-1.2
235	0001	0101	3631.88	3700.0	-2.5	-0.2	22.1	3695.0	5.0
236	0001	0100	3647.50	3715.8	0.2	0.0	15.8	3710.8	5.0

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THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111	1111	-23.375	-25.7	-0.1	0.1		-18.7	-7.0
2	1111	1110	3.250	-7.4	0.2	0.3	18.3	-2.8	-4.6
3	1111	1101	6.875	13.1	-0.4	0.0	26.5	13.0	0.1
4	1111	1100	22.500	25.8	-0.5	-0.8	12.7	28.9	-3.1
5	1111	1011	38.125	41.5	0.0	-1.2	6.7	44.8	-3.2
6	1111	1010	53.750	64.5	0.3	0.3	23.0	50.5	3.9
7	1111	1001	69.375	78.3	0.3	0.3	13.7	76.5	1.8
8	1111	1000	85.000	88.1	0.3	0.0	9.8	92.4	-4.3
9	1111	0111	100.625	102.7	-0.3	0.2	14.7	106.2	-5.5
10	1111	0110	116.250	123.1	0.3	0.0	20.4	124.1	-1.0
11	1111	0101	131.875	140.8	0.1	0.3	17.6	140.0	0.8
12	1111	0100	147.500	157.9	-0.1	0.3	17.1	155.8	2.1
13	1111	0011	163.125	159.6	-0.3	-0.2	11.7	171.7	-2.1
14	1111	0010	178.750	194.6	-0.2	-0.2	21.0	187.6	7.1
15	1111	0001	194.375	206.3	0.2	0.0	11.7	203.4	7.9
16	1111	0000	210.000	214.2	0.3	0.2	8.4	219.3	-4.6
17	1110	1111	17.625	230.0	-0.3	0.0	15.3	235.2	-5.2
18	1110	1110	241.250	248.4	-0.4	-0.3	18.4	251.0	-2.6
19	1110	1101	256.875	268.2	-0.1	0.3	19.8	258.9	1.4
20	1110	1100	272.500	282.6	0.2	0.3	14.7	282.8	-0.2
21	1110	1011	303.125	298.6	0.2	0.2	19.0	298.6	-2.0
22	1110	1010	309.750	319.3	-0.3	0.0	27.7	314.5	4.8
23	1110	1001	319.375	333.7	-0.1	0.0	18.9	330.3	3.3
24	1110	1000	335.000	348.8	0.1	-0.2	15.1	345.2	2.6
25	1110	0111	350.625	367.7	0.1	0.2	8.9	362.1	-4.3

3-222. THERMATIC MATTER BOX UNIT TEST MODEL.. FLT. S/N 3 PAGE 297

01/11/80 12:20:04 FINALITY FULL PERFORMANCE @ AMBIEN. TEMP.

47510210-13 0000 THERMATIC MATTER BOX UNIT SENSORS=17

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DESIGNED UNIT	X/Y TEST POINT	OUTPUT UNIT	ANALOG INPUT VOLTAGE (MV)				TEMPERATURE FROM PREV TEST POINT	BEST FIT STRAIGHT LINE	
			UNITS (MV)	NOMINAL	LOW	HIGH		POINT	DEVIATION
1	1100	1100	772.500	791.4	0.2	0.0	14.2	790.5	0.9
2	1100	1011	788.125	805.6	0.2	0.2	14.1	806.3	-0.8
3	1100	1010	803.750	827.3	0.0	0.3	21.7	832.2	5.1
4	1100	1001	819.375	842.6	-0.0	-0.1	15.3	858.1	4.5
5	1100	1000	835.000	859.8	-0.1	-0.4	17.2	873.9	5.9
6	1100	0111	850.625	866.2	0.2	0.0	6.4	869.8	-3.6
7	1100	0110	866.250	886.2	0.3	0.4	20.0	891.2	0.5
8	1100	0101	881.875	904.0	-0.4	0.0	17.8	911.5	2.5
9	1100	0100	897.500	923.5	-0.3	-0.4	19.5	917.4	6.1
10	1100	0011	913.125	932.4	0.0	-0.2	8.9	933.3	-0.9
11	1100	0010	928.750	956.8	0.2	0.1	24.4	949.1	7.6
12	1100	0001	944.375	968.7	0.3	0.3	11.9	965.0	3.7
13	1100	0000	960.000	977.4	-0.2	0.0	8.7	980.9	-3.5
14	1011	1111	975.625	994.3	-0.3	-0.2	16.9	996.7	-2.5
15	1011	1110	991.250	1011.3	0.3	0.1	17.0	1012.6	-1.3
16	1011	1101	1006.875	1032.0	0.2	0.2	20.7	1028.5	3.5
17	1011	1100	1022.500	1043.2	0.0	0.5	11.2	1044.3	-1.1
18	1011	1011	1038.125	1060.4	-0.2	-0.3	17.2	1060.2	0.2
19	1011	1010	1053.750	1083.3	-0.4	-0.4	22.2	1076.1	7.2
20	1011	1001	1069.375	1097.9	0.2	-0.0	14.5	1091.9	5.9
21	1011	1000	1085.000	1105.3	0.3	0.4	7.4	1107.8	-2.5
22	1011	0111	1100.625	1120.9	-0.2	0.0	17.6	1123.7	-2.7
23	1011	0110	1116.250	1140.2	-0.3	0.3	19.7	1139.5	1.1
24	1011	0101	1131.875	1158.9	-0.0	-0.3	18.2	1155.4	3.5
25	1011	0100	1147.500	1174.6	0.1	0.1	15.7	1171.3	3.3
26	1011	0011	1163.125	1186.7	0.3	0.3	12.1	1187.1	-0.5
27	1011	0010	1178.750	1211.8	-0.3	-0.0	25.1	1209.0	0.8

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OF POOR QUALITY

H5-236 PNEUMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 29B

1981/11/10 12:20:04 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.14.14.14-14 270 THRESHOLD TEST (RAND= 27 SENSITIVE)



01/30/81

THRESHOLD AND OUTPUT DURATI THRESHOLD	TOTAL VALUE (KV)	ANALOG INPUT VOLTAGE (KV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
77 1011 0001	1194.78	1223.4	-0.2	-0.2	11.6	1218.9	4.5
78 1011 0000	1210.00	1233.3	0.3	-0.0	2.9	1234.7	-1.5
81 1010 1111	1225.63	1246.6	0.2	0.3	13.3	1250.6	-4.0
82 1010 1110	1241.25	1264.2	-0.1	0.2	12.5	1266.5	-2.3
83 1010 1101	1256.88	1284.7	-0.3	-0.4	20.6	1282.3	2.4
84 1010 1100	1272.50	1298.0	-0.1	-0.2	13.2	1298.2	-0.2
85 1010 1011	1288.13	1312.5	0.3	0.0	14.5	1314.1	-1.5
86 1010 1010	1303.75	1334.4	0.3	0.3	21.8	1329.9	4.5
87 1010 1001	1319.38	1350.4	-0.4	-0.1	16.0	1345.8	4.6
88 1010 1000	1335.00	1364.8	-0.4	-0.4	14.4	1361.7	3.2
89 1010 0111	1350.63	1373.4	-0.1	-0.4	8.6	1377.5	-4.1
90 1010 0110	1366.25	1392.8	0.4	0.3	19.4	1393.4	-0.6
91 1010 0101	1381.88	1410.6	0.3	0.3	12.8	1409.3	1.4
92 1010 0100	1397.50	1429.4	-0.1	-0.1	18.9	1425.1	4.3
93 1010 0011	1413.13	1449.1	-0.3	-0.2	9.7	1441.0	-1.9
94 1010 0010	1428.75	1464.1	0.1	-0.1	25.0	1456.9	2.2
95 1010 0001	1444.38	1475.3	0.3	0.4	11.2	1472.7	2.5
96 1010 0000	1460.00	1490.4	0.3	0.3	15.1	1488.6	1.8
97 1001 1111	1475.63	1499.6	-0.3	-0.3	9.2	1504.5	-4.8
98 1001 1110	1491.25	1516.3	-0.3	-0.3	16.7	1520.3	-4.0
99 1001 1101	1506.88	1536.9	0.3	0.0	20.5	1536.2	0.7
100 1001 1100	1522.50	1547.6	0.4	0.2	10.7	1552.1	-4.5
101 1001 1011	1528.13	1565.6	-0.1	-0.0	18.0	1567.9	-2.3
102 1001 1010	1553.75	1587.6	-0.2	0.2	22.0	1583.8	3.8
103 1001 1001	1569.38	1603.1	-0.1	-0.4	15.5	1599.7	3.5
104 1001 1000	1585.00	1612.4	0.1	0.3	9.3	1615.5	-3.1

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PC-234 THE BUILT MODEL FOR BEST TEST MODEL... PAGE 299

VALU... 121.0104... PERFORMANCE... 121.0104...

... 121.0104... 121.0104... 121.0104... 121.0104... 121.0104...



33	VALU	121.0104	121.0104	INFECTION RATE (%)			INFECTION RATE (%)	BEST FIT STRAIGHT LINE	
				NOMINAL	LOWER	HIGHER		POINT	LOCATION
101	1001	0111	1600.63	1625.8	0.2	0.3	13.3	1631.4	-5.6
102	1001	0110	1616.27	1641.2	-0.3	-0.0	19.4	1647.3	-2.1
103	1001	0101	1631.98	1663.6	-0.3	-0.3	18.4	1663.1	0.5
104	1001	0100	1647.50	1680.2	0.2	-0.1	16.6	1679.0	1.2
105	1001	0011	1662.12	1691.6	0.3	0.3	11.4	1694.9	-3.2
106	1001	0010	1678.75	1715.9	-0.0	0.2	24.1	1710.7	5.2
107	1001	0001	1693.98	1729.2	-0.3	-0.2	13.2	1726.6	2.6
108	1001	0000	1708.00	1742.1	-0.2	0.2	12.9	1742.5	-0.4
109	1000	1111	1725.53	1751.6	0.2	0.1	9.3	1758.3	-6.7
110	1000	1110	1741.27	1768.4	0.4	0.4	16.8	1774.2	-1.8
111	1000	1101	1756.88	1789.3	0.1	0.0	16.9	1793.0	-0.8
112	1000	1100	1772.70	1802.4	-0.2	-0.2	17.1	1809.2	-3.5
113	1000	1011	1788.13	1817.6	0.0	-0.2	17.2	1821.8	4.2
114	1000	1010	1803.75	1838.2	0.1	0.3	21.1	1837.6	1.1
115	1000	1001	1819.58	1854.0	0.2	0.2	16.1	1853.5	1.3
116	1000	1000	1835.00	1872.3	-0.2	-0.1	12.1	1869.4	2.9
117	1000	0111	1850.63	1878.2	0.5	0.3	11.9	1885.2	-2.0
118	1000	0110	1866.27	1897.1	0.2	-0.1	18.8	1901.1	-4.8
119	1000	0101	1881.89	1915.3	0.2	0.2	17.2	1917.0	-1.2
120	1000	0100	1897.50	1933.2	-0.3	0.3	17.0	1932.8	0.4
121	1000	0011	1913.12	1943.8	-0.2	0.2	17.5	1948.7	-4.9
122	1000	0010	1928.75	1958.2	-0.1	0.4	21.9	1954.6	9.1
123	1000	0001	1944.08	1980.6	-0.3	0.3	11.8	1980.4	0.1
124	1000	0000	1959.00	1991.9	0.1	0.1	11.3	1996.3	-4.4
125	0111	1111	1975.53	2007.0	-0.2	0.1	11.1	2012.2	-1.2
126	0111	1110	1991.27	2025.5	-0.3	-0.3	18.5	2028.0	-2.6

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IS-216 THERMIST MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 300

1981/11/30 12:20:04 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.13.5-13 AND THRESHOLD TEST CHAND= 2* SENSOR=5 10 30 81

HRS SHOLD NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (KV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			NOMINAL	LOWER	UPPER		POINT	DEVIATION
131	0111 1101	2006.88	2044.9	0.0	-0.2	19.4	2043.9	1.0
132	0111 1100	2022.50	2061.8	0.3	0.2	16.9	2059.8	2.0
133	0111 1011	2038.13	2072.8	0.3	0.3	11.0	2075.6	-2.8
134	0111 1010	2053.75	2098.2	-0.4	-0.1	21.4	2091.5	6.7
135	0111 1001	2069.38	2110.2	-0.3	0.2	11.9	2107.4	2.8
136	0111 1000	2085.00	2119.0	0.4	0.0	8.9	2123.2	-4.2
137	0111 0111	2100.63	2133.4	0.2	0.3	14.4	2139.1	-5.7
138	0111 0110	2116.25	2154.1	0.0	0.5	20.7	2155.0	-0.9
139	0111 0101	2131.88	2171.5	-0.2	-0.2	17.3	2170.8	0.6
140	0111 0100	2147.50	2190.4	-0.2	-0.2	18.9	2186.7	3.7
141	0111 0011	2163.13	2199.3	0.3	0.0	8.9	2202.6	-3.3
142	0111 0010	2178.75	2226.4	0.4	0.4	27.1	2218.4	7.9
143	0111 0001	2194.38	2236.1	-0.3	0.1	9.7	2234.3	1.8
144	0111 0000	2210.00	2243.9	-0.2	-0.1	7.8	2250.2	-6.3
145	0110 1111	2225.63	2259.7	-0.1	-0.3	15.9	2266.0	-6.3
146	0110 1110	2241.25	2277.8	0.1	0.4	18.0	2281.9	-4.1
147	0110 1101	2256.88	2297.3	0.2	0.2	19.5	2297.8	-0.5
148	0110 1100	2272.50	2312.4	-0.2	0.1	15.1	2313.6	-1.3
149	0110 1011	2288.13	2325.5	-0.2	-0.2	13.2	2329.5	-4.0
150	0110 1010	2303.75	2349.6	0.3	0.0	24.0	2345.4	4.2
151	0110 1001	2319.38	2363.0	0.2	0.2	13.4	2361.2	1.8
152	0110 1000	2335.00	2378.2	0.4	-0.0	15.1	2377.1	1.1
153	0110 0111	2350.63	2386.1	-0.2	-0.2	7.9	2393.0	-6.9
154	0110 0110	2366.25	2406.9	-0.3	-0.3	20.8	2408.8	-1.9
155	0110 0101	2381.88	2423.7	0.2	0.0	16.8	2424.7	-1.0
156	0110 0100	2397.50	2446.4	0.2	0.2	22.7	2440.6	5.8
157	0110 0011	2413.13	2461.9	-0.3	0.1	15.5	2456.4	-4.1

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REFRESHED	AND OUTPUT	DIGITAL	ANALOG INPUT VOLTAGE (MV)	INCREASE	BEST FIT STRAIGHT LINE			
NUMBER	THRESHOLD	VALUE	LEVELS RATIO--	1 : 1	POINT , DEVIATION			
		(10)	NOMINAL	LOWER	UPPER	THRESHOLD		
118	0110 0010	2428.75	2479.6	-0.3	-0.3	27.7	2472.3	7.3
119	0110 0001	2444.38	2488.3	0.8	-0.2	8.7	2488.2	0.1
120	0110 0000	2460.00	2501.3	0.2	0.2	13.0	2504.0	-2.8
121	0101 1111	2475.63	2512.4	0.2	0.2	11.1	2519.9	-7.5
122	0101 1110	2491.25	2530.8	-0.3	-0.3	18.4	2535.8	-4.9
123	0101 1101	2506.88	2550.5	-0.3	-0.2	19.7	2551.6	-1.1
124	0101 1100	2522.50	2562.5	0.3	-0.1	11.9	2567.5	-5.0
125	0101 1011	2538.13	2578.3	0.2	0.2	15.8	2583.4	-5.1
126	0101 1010	2553.75	2602.9	-0.3	0.2	24.6	2599.2	3.7
127	0101 1001	2569.38	2616.4	-0.3	0.3	13.5	2615.1	1.3
128	0101 1000	2585.00	2626.8	-0.3	-0.3	10.4	2631.0	-4.2
129	0101 0111	2600.63	2639.0	0.1	0.4	12.2	2646.8	-7.8
130	0101 0110	2616.25	2659.0	0.4	0.4	20.0	2662.7	-3.7
131	0101 0101	2631.88	2672.0	0.3	-0.0	18.0	2678.6	-1.5
132	0101 0100	2647.50	2694.2	-0.3	-0.2	19.1	2694.4	1.7
133	0101 0011	2663.13	2704.9	0.0	-0.3	8.8	2710.3	-5.4
134	0101 0010	2678.75	2731.4	0.3	0.3	26.5	2726.2	5.2
135	0101 0001	2694.38	2741.3	0.3	1.1	9.8	2742.0	-0.8
136	0101 0000	2710.00	2763.5	-0.4	-0.4	12.2	2757.9	-4.4
137	0100 1111	2725.63	2785.1	-0.2	-0.2	11.6	2773.8	-8.7
138	0100 1110	2741.25	2792.8	0.4	0.0	17.6	2789.6	-6.9
139	0100 1101	2756.88	2802.7	0.3	0.3	19.9	2805.5	-2.8
140	0100 1100	2772.50	2812.2	0.0	0.4	13.5	2821.4	-4.1
141	0100 1011	2788.13	2831.0	-0.3	-0.2	12.8	2837.2	-6.2
142	0100 1010	2803.75	2854.9	-0.4	-0.3	21.9	2853.1	1.8
143	0100 1001	2819.38	2868.7	0.3	0.4	13.8	2869.0	-0.2

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3.1.1.5-A A/D THRESHOLD TEST (BAND= 2, SENSIT=5)

REFERENCE NUMBER	A/D OUTPUT THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
			LEVELS RATIO=	LOWER	UPPER		POINT	DEVIATION
184	0100 1000	2885.00	2887.6	0.2	0.3	18.9	2884.8	2.8
185	0100 0111	2850.63	2881.8	-0.2	0.0	4.1	2900.7	-3.9
186	0100 0110	2866.25	2912.1	-0.4	-0.3	20.3	2916.6	-4.4
187	0100 0101	2881.88	2929.6	-0.0	-0.3	17.5	2932.4	-2.8
188	0100 0100	2897.50	2949.0	0.4	0.3	19.3	2948.3	0.7
189	0100 0011	2913.13	2967.3	0.4	0.3	8.3	2964.2	-6.8
190	0100 0010	2928.75	2985.1	-0.2	-0.4	22.8	2980.0	5.1
191	0100 0001	2944.38	2994.5	-0.1	0.4	9.4	2995.9	-1.4
192	0100 0000	2960.00	3005.3	0.3	0.1	10.8	3011.8	-6.5
193	0011 1111	2975.63	3019.7	0.1	0.3	14.4	3027.6	-7.9
194	0011 1110	2991.25	3038.5	-0.2	0.4	13.7	3043.5	-7.0
195	0011 1101	3006.88	3057.9	-0.3	-0.3	19.5	3059.4	-1.4
196	0011 1100	3022.50	3074.3	-0.0	-0.3	16.3	3075.2	-0.9
197	0011 1011	3038.13	3085.9	0.2	0.4	11.6	3091.1	-5.2
198	0011 1010	3053.75	3110.7	0.2	0.3	24.8	3107.0	3.7
199	0011 1001	3069.38	3124.2	-0.3	0.1	13.5	3122.8	1.4
200	0011 1000	3085.00	3132.1	-0.4	-0.3	7.9	3138.7	-6.6
201	0011 0111	3100.63	3147.3	0.0	-0.3	15.2	3154.6	-7.3
202	0011 0110	3116.25	3167.2	0.4	0.4	19.9	3170.4	-3.3
203	0011 0101	3131.88	3185.0	-0.1	0.3	17.8	3186.3	-1.3
204	0011 0100	3147.50	3203.7	-0.4	-0.3	18.7	3202.2	1.5
205	0011 0011	3163.13	3213.5	-0.3	-0.1	9.8	3218.0	-4.6
206	0011 0010	3178.75	3240.2	0.3	0.0	26.7	3243.9	6.3
207	0011 0001	3194.38	3250.1	0.4	0.2	9.9	3249.7	0.4
208	0011 0000	3210.00	3260.7	0.0	0.3	10.6	3265.6	-4.9
209	0010 1111	3225.63	3274.3	-0.2	-0.3	13.7	3281.5	-7.1

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REFLECTOR SAMPLE	AZD THRESHOLD	OUTSIDE THRESHOLD	DIPOL UNIT	ANALOG INPUT VOLTAGE (mV)		INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE		
			NOMINAL	LOWER	POINT		DEVIATION		
210	0010	1110	3241.25	3292.3	0.1	-0.4	18.0	3292.3	-5.0
211	0010	1101	3256.88	3312.0	0.3	0.3	19.7	3313.2	-1.2
212	0010	1100	3272.50	3326.0	0.3	0.3	14.0	3329.1	-3.0
213	0010	1011	3288.13	3340.7	-0.4	-0.0	14.7	3344.9	-4.2
214	0010	1010	3303.75	3345.1	0.3	-0.2	24.3	3340.8	4.3
215	0010	1001	3319.38	3378.9	0.0	-0.3	13.8	3376.7	2.2
216	0010	1000	3335.00	3395.0	0.4	0.4	16.1	3392.5	2.5
217	0010	0111	3350.63	3401.7	-0.0	0.3	6.6	3408.4	-6.7
218	0010	0110	3366.25	3422.5	-0.5	-0.4	20.8	3424.3	-1.8
219	0010	0101	3381.88	3440.2	-0.4	-0.3	17.7	3440.1	0.0
220	0010	0100	3397.50	3462.2	0.2	0.1	22.1	3456.0	6.2
221	0010	0011	3413.13	3468.2	0.1	0.2	6.0	3471.9	-3.7
222	0010	0010	3428.75	3496.0	-0.2	0.3	27.7	3487.7	8.2
223	0010	0001	3444.38	3505.5	-0.0	-0.1	9.5	3503.6	1.8
224	0010	0000	3460.00	3522.6	-0.0	0.3	17.2	3519.5	3.2
225	0001	1111	3475.63	3529.8	0.3	0.3	7.1	3535.3	-5.6
226	0001	1110	3491.25	3547.9	0.4	0.6	18.1	3551.2	-3.3
227	0001	1101	3506.88	3568.3	-0.4	0.0	20.4	3567.1	1.2
228	0001	1100	3522.50	3579.7	-0.3	-3.2	11.4	3582.9	-3.2
229	0001	1011	3538.13	3596.9	-0.0	-0.3	17.2	3598.8	-1.9
230	0001	1010	3553.75	3621.1	0.4	0.2	24.2	3614.7	6.4
231	0001	1001	3569.38	3635.0	-0.1	0.4	13.9	3630.5	4.4
232	0001	1000	3585.00	3645.0	-0.4	-0.1	10.0	3646.4	-1.4
233	0001	0111	3600.63	3658.5	-0.4	-0.3	13.5	3662.3	-3.7
234	0001	0110	3616.25	3678.3	0.2	0.0	19.7	3678.1	0.1
235	0001	0101	3631.88	3696.6	0.1	0.3	18.3	3694.0	2.6
236	0001	0100	3647.50	3715.4	-0.1	0.3	18.8	3709.9	5.5

OF POOR QUALITY

45-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 304

981/11/30 12:20:04 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.1.3.5-13 AND THRESHOLD TEST (RANGE= 2, SENSORS=5) NOV 30 81

THRESHOLD AND OUTPUT NUMBER THRESHOLD	IDEAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
237	0001 0011	3663.13	3725.3	-0.2	-0.2	3725.7	-0.4
238	0001 0010	3678.75	3752.0	-0.2	-0.3	3741.6	10.4
239	0001 0001	3694.38	3767.8	-0.1	0.2	3757.5	5.3
240	0001 0000	3710.00	3776.2	0.4	0.3	3773.3	2.9
241	0000 1111	3725.63	3786.7	-0.4	0.0	3789.2	-2.5
242	0000 1110	3741.25	3805.6	-0.6	-0.5	3805.1	0.5
243	0000 1101	3756.88	3824.9	-0.1	-0.3	3820.9	4.0
244	0000 1100	3772.50	3838.4	0.2	0.4	3836.8	1.5
245	0000 1011	3788.13	3853.3	-0.0	0.4	3852.7	0.6
246	0000 1010	3803.75	3878.3	-0.3	-0.3	3868.5	9.8
247	0000 1001	3819.38	3892.2	-0.4	-0.3	3884.4	7.8
248	0000 1000	3835.00	3911.5	0.3	0.0	3900.3	11.3
249	0000 0111	3850.63	3915.2	0.3	0.3	3916.1	-1.0
250	0000 0110	3866.25	3935.3	-0.2	0.4	3932.0	3.3
251	0000 0101	3881.88	3953.9	-0.4	-0.2	3947.9	6.0
252	0000 0100	3897.50	3973.1	0.1	-0.6	3963.7	9.4
253	0000 0011	3913.13	3982.3	0.2	0.4	3979.6	2.7
254	0000 0010	3928.75	4009.8	0.1	0.3	3995.5	14.3
255	0000 0001	3944.38	4021.0	-0.4	0.0	4011.3	9.7

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HS-2235 THERMAL MATTER BOX UNIT TEST MODEL.. FLT. SZN 3 PAGE 306

1981/11/30 12:26:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.55 21.25 -43 AND THREE SHOULD TEST CHARGE 2+ SENSORS=6



NO 30 '81

DESIGNED AND OUTPUT DURCHEN TURESHOLD	IDEAL VALUE (MU)	ANNOUNC INPUT VOLTAGE (MU) LEVELS RATIO 1:1 NOMINAL LOWER UPPER	INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE POINT DEVIATION
--	------------------------	---	------------------------------------	---

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

1	1111 1111	-24.375	-32.0	-0.9	0.5		-24.7	-7.4
2	1111 1110	-8.750	-13.8	0.3	0.3	18.2	-8.8	-5.1
3	1111 1101	6.875	6.9	-0.2	-0.1	20.7	7.1	-0.2
4	1111 1100	22.500	20.1	-0.4	-0.8	13.2	23.0	-2.9
5	1111 1011	38.125	35.2	0.1	0.0	15.1	38.9	-3.7
6	1111 1010	53.750	58.4	0.3	0.4	23.2	54.8	3.6
7	1111 1001	69.375	72.4	-0.1	0.1	14.0	70.7	1.7
8	1111 1000	85.000	85.7	-0.4	-0.3	13.3	86.6	-0.8
9	1111 0111	100.625	96.7	-0.1	-0.2	10.9	102.5	-5.8
10	1111 0110	116.250	116.9	0.2	0.3	20.2	118.3	-1.5
11	1111 0101	131.875	134.4	0.4	0.5	17.5	134.2	0.2
12	1111 0100	147.500	152.7	-0.2	0.0	18.2	150.1	2.6
13	1111 0011	163.125	163.6	-0.2	0.2	10.9	166.0	-2.4
14	1111 0010	178.750	189.5	-0.1	-0.2	25.9	181.9	7.6
15	1111 0001	194.375	200.5	0.1	0.2	11.0	197.8	2.7
16	1111 0000	210.000	218.2	0.2	0.3	9.7	213.7	-3.7
17	1110 1111	225.625	224.2	-0.2	-0.1	14.0	229.6	-1.4
18	1110 1110	241.250	242.3	0.3	0.2	18.1	245.5	-3.1
19	1110 1101	256.875	262.5	0.0	0.0	20.2	261.4	1.1
20	1110 1100	272.500	277.2	0.1	0.2	14.7	277.2	0.0
21	1110 1011	288.125	290.8	-0.1	0.1	13.6	293.1	-2.3
22	1110 1010	303.750	314.1	-0.2	-0.2	25.3	309.0	5.1
23	1110 1001	319.375	328.0	-0.1	-0.1	13.9	324.9	3.1
24	1110 1000	335.000	344.4	0.4	0.8	16.4	340.8	3.6
25	1110 0111	350.625	352.1	0.1	0.1	7.6	356.7	-4.6

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S-236 THEMATIC MAPPER MUX UNIT TEST MODEL . . FLT. S/N 3 PAGE 308

981/11/30 12:26:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

ANALOG INPUT THRESHOLD TEST (CHAN)= 2, SENSORS= A

HAC
TEST
S27

REV 30 81

IN THRESHOLD A/D OUTPUT NUMBER THRESHOLD	TOTAL VALUE (MV)	ANALOG INPUT VOLTAGE (MV)			INCREASE FROM PREV THRESHOLD	BEST FIT STRAIGHT LINE	
		NOMINAL	LOWER	UPPER		POINT	DEVIATION
52	1100 1100	772.500	786.9	0.1	0.1	785.7	1.2
53	1100 1011	788.125	800.6	0.1	0.2	801.6	-1.0
54	1100 1010	803.750	823.2	-0.2	0.0	817.5	5.7
55	1100 1001	819.375	837.5	-0.2	-0.1	833.4	4.1
56	1100 1000	835.000	856.7	-0.0	-0.3	849.3	7.4
57	1100 0111	850.625	861.4	0.1	0.1	865.2	-3.8
58	1100 0110	866.250	881.1	0.0	0.3	881.1	-0.0
59	1100 0101	881.875	899.7	-0.2	-0.2	897.0	2.7
60	1100 0100	897.500	919.5	-0.2	-0.3	912.8	6.7
61	1100 0011	913.125	927.4	0.1	0.0	928.7	-1.4
62	1100 0010	928.750	952.8	0.1	0.1	944.6	8.2
63	1100 0001	944.375	964.0	0.0	0.1	950.5	3.5
64	1100 0000	960.000	972.0	-0.2	-0.2	976.4	-4.4
65	1011 1111	975.625	989.6	-0.0	-0.2	992.3	-2.7
66	1011 1110	991.250	1006.5	0.2	0.3	1008.2	-1.7
67	1011 1101	1006.88	1027.6	0.2	0.2	1024.1	3.5
68	1011 1100	1022.50	1039.5	-0.3	0.0	1040.0	-0.5
69	1011 1011	1038.13	1055.8	-0.2	-0.2	1055.9	-0.1
70	1011 1010	1053.75	1078.5	-0.0	-0.4	1071.7	6.7
71	1011 1001	1069.38	1092.3	0.2	0.1	1087.6	4.6
72	1011 1000	1085.00	1101.8	2.8	3.1	1103.5	-1.7
73	1011 0111	1100.63	1116.4	-0.2	-0.2	1119.4	-3.0
74	1011 0110	1116.25	1136.0	-0.3	-0.3	1135.3	0.7
75	1011 0101	1131.88	1154.4	0.3	-0.0	1151.2	3.2
76	1011 0100	1147.50	1170.3	0.2	0.3	1167.1	3.2
77	1011 0011	1163.13	1182.3	0.0	0.1	1183.0	-0.6
78	1011 0010	1178.75	1207.9	-0.2	-0.3	1198.9	9.0

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REV 30 '8

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HS-25 THERMATIC MAULTER MIX UNIT TEST MODEL 1. P.T. SAN 3 PAGE 311

1981/11/30 12:26:41 PENALTY FOR PERFORMANCE DEGRADATION TEMP.

1.1.1.1.5-1.1.1.1.1 THRESHOLD TEST GRAND= 2 SENSOR=4

HAC
TEST
S27

NOV 30 '81

| LINE | STATE | AND | OUTPUT | ANALOG | INLET | VOLTAGE | (MV) | INCREASE | BEST FIT | STRAIGHT | LINE |
|--------|-------|-----------|---------|---------|-------|---------|-----------|-----------|----------|-----------|------|
| DEGREE | AND | THRESHOLD | VALUE | NOMINAL | LOWER | UPPER | FROM PREV | THRESHOLD | POINT | DEVIATION | |
| 13 | 0111 | 1101 | 2006.88 | 2041.6 | 0.2 | -0.0 | 19.3 | 2041.0 | 0.5 | | |
| 132 | 0111 | 1100 | 2022.50 | 2055.1 | 0.3 | 0.3 | 13.6 | 2056.9 | -1.8 | | |
| 133 | 0111 | 1011 | 2038.13 | 2070.0 | -0.1 | -0.0 | 14.8 | 2072.8 | -2.8 | | |
| 134 | 0111 | 1010 | 2053.75 | 2095.8 | -0.3 | -0.2 | 21.8 | 2098.7 | 7.1 | | |
| 135 | 0111 | 1001 | 2069.38 | 2106.5 | 0.0 | -0.0 | 10.7 | 2104.6 | 1.9 | | |
| 136 | 0111 | 1000 | 2085.00 | 2116.9 | 2.9 | 0.3 | 10.5 | 2120.5 | -3.5 | | |
| 137 | 0111 | 0111 | 2100.63 | 2130.6 | 0.1 | 0.2 | 13.6 | 2136.4 | -5.8 | | |
| 138 | 0111 | 0110 | 2116.25 | 2151.3 | -0.3 | -0.0 | 20.7 | 2152.3 | -0.9 | | |
| 139 | 0111 | 0101 | 2131.88 | 2168.4 | -0.2 | -0.2 | 17.1 | 2168.1 | 0.3 | | |
| 140 | 0111 | 0100 | 2147.50 | 2187.6 | -0.1 | 0.1 | 19.1 | 2184.0 | 3.6 | | |
| 141 | 0111 | 0011 | 2163.13 | 2195.5 | 0.1 | 0.2 | 8.9 | 2199.9 | -3.4 | | |
| 142 | 0111 | 0010 | 2178.75 | 2224.1 | -0.0 | 0.2 | 22.6 | 2215.8 | 8.3 | | |
| 143 | 0111 | 0001 | 2194.38 | 2233.2 | -0.1 | -0.2 | 9.1 | 2231.7 | 1.5 | | |
| 144 | 0111 | 0000 | 2210.00 | 2242.7 | -0.3 | -0.1 | 9.5 | 2247.6 | -4.9 | | |
| 145 | 0110 | 1111 | 2225.63 | 2256.7 | 0.2 | 0.0 | 14.0 | 2263.5 | -6.8 | | |
| 146 | 0110 | 1110 | 2241.25 | 2275.0 | 0.3 | 0.2 | 18.1 | 2279.4 | -4.4 | | |
| 147 | 0110 | 1101 | 2256.88 | 2294.8 | -0.1 | -0.0 | 19.8 | 2295.3 | -0.5 | | |
| 148 | 0110 | 1100 | 2272.50 | 2310.1 | 0.2 | -0.2 | 15.3 | 2311.7 | -1.0 | | |
| 149 | 0110 | 1011 | 2288.13 | 2327.8 | 0.0 | -0.2 | 12.7 | 2327.0 | 4.7 | | |
| 150 | 0110 | 1010 | 2303.75 | 2348.9 | -1.4 | -1.3 | 26.1 | 2352.9 | 6.0 | | |
| 151 | 0110 | 1001 | 2319.38 | 2359.2 | 0.2 | 0.2 | 10.3 | 2358.8 | 0.4 | | |
| 152 | 0110 | 1000 | 2335.00 | 2380.3 | -0.3 | -3.0 | 21.1 | 2374.7 | 5.6 | | |
| 153 | 0110 | 0111 | 2350.63 | 2403.5 | -0.1 | -0.2 | 11.2 | 2396.6 | -7.1 | | |
| 154 | 0110 | 0110 | 2366.25 | 2403.9 | 6.4 | 0.0 | 20.4 | 2406.5 | -2.6 | | |
| 155 | 0110 | 0101 | 2381.88 | 2421.1 | 0.1 | 0.1 | 17.2 | 2422.4 | -1.2 | | |
| 156 | 0110 | 0100 | 2397.50 | 2444.7 | -0.0 | 0.2 | 23.6 | 2438.3 | 6.4 | | |
| 157 | 0110 | 0011 | 2413.13 | 2449.3 | -0.1 | 0.1 | 4.6 | 2454.2 | -4.9 | | |

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HS-205 DEGRADING MONITOR MIX UNIT TEST MODEL... FLT. 5/20/81 PAGE 312

1900/11/30 12:26:41 QUALITY FULL PERFORMANCE @ AMBIENT TEMP.

8.5.5.4.1.1 AND THRESHOLD TEST (SAND= 2, SENSOR=4)



03 30 81

| HISTORICAL AND OUTLIER DATA | | IDEAL VALUE (MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE FROM PREV THRESHOLD | BEST FIT STRAIGHT LINE | |
|-----------------------------|-----------|------------------|---------------------------|-------|-------|------------------------------|------------------------|-----------|
| DATE | THRESHOLD | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 11/8 | 0110 0010 | 2428.75 | 2477.5 | -0.3 | -0.3 | 28.3 | 2470.1 | 7.5 |
| 11/9 | 0110 0001 | 2444.38 | 2485.6 | 0.1 | -0.0 | 8.1 | 2485.9 | -0.3 |
| 12/ | 0110 0000 | 2460.00 | 2500.1 | 0.3 | 0.2 | 14.4 | 2501.8 | -1.8 |
| 14/ | 0101 1111 | 2475.63 | 2510.2 | -0.2 | 0.0 | 10.1 | 2517.7 | -7.5 |
| 14/ | 0101 1110 | 2491.25 | 2527.9 | -0.3 | -0.3 | 17.7 | 2533.6 | -5.7 |
| 14/ | 0101 1101 | 2506.88 | 2548.2 | 0.0 | -0.2 | 20.3 | 2549.5 | -1.3 |
| 14/ | 0101 1100 | 2522.50 | 2560.7 | 0.3 | 0.1 | 12.5 | 2565.4 | -4.7 |
| 14/ | 0101 1011 | 2538.13 | 2576.0 | 0.1 | 0.2 | 15.3 | 2581.3 | -5.3 |
| 14/ | 0101 1010 | 2553.75 | 2601.4 | -0.6 | -0.1 | 21.4 | 2597.2 | 4.2 |
| 14/ | 0101 1001 | 2569.38 | 2613.7 | -0.3 | -0.2 | 12.2 | 2613.1 | 0.2 |
| 14/ | 0101 1000 | 2585.00 | 2625.4 | 0.3 | 0.0 | 11.6 | 2629.0 | -3.6 |
| 14/ | 0101 0111 | 2600.63 | 2636.8 | 0.2 | 0.3 | 11.4 | 2644.8 | -0.1 |
| 14/ | 0101 0110 | 2616.25 | 2656.7 | 0.0 | 0.3 | 19.9 | 2660.7 | -4.0 |
| 14/ | 0101 0101 | 2631.88 | 2674.2 | -0.2 | -0.2 | 18.1 | 2676.6 | -1.8 |
| 14/ | 0101 0100 | 2647.50 | 2694.6 | -0.2 | 0.2 | 19.8 | 2692.5 | 2.1 |
| 14/ | 0101 0011 | 2663.13 | 2707.7 | 0.2 | 0.2 | 8.0 | 2708.4 | -1.7 |
| 14/ | 0101 0010 | 2678.75 | 2729.8 | 0.3 | 0.3 | 22.1 | 2724.3 | 5.5 |
| 14/ | 0101 0001 | 2694.38 | 2749.2 | -0.2 | 0.1 | 9.4 | 2746.2 | -1.0 |
| 14/ | 0101 0000 | 2710.00 | 2771.1 | -0.2 | -0.2 | 17.9 | 2756.1 | 1.0 |
| 14/ | 0100 1111 | 2725.63 | 2763.2 | -0.0 | -0.2 | 6.2 | 2772.0 | -8.7 |
| 14/ | 0100 1110 | 2741.25 | 2780.7 | 0.3 | 0.3 | 17.4 | 2787.9 | -7.2 |
| 14/ | 0100 1101 | 2756.88 | 2801.0 | 0.2 | 0.2 | 20.3 | 2803.7 | -2.7 |
| 14/ | 0100 1100 | 2772.50 | 2816.0 | -0.3 | -0.1 | 15.0 | 2819.6 | -3.6 |
| 14/ | 0100 1011 | 2788.13 | 2829.1 | -0.2 | -0.2 | 13.0 | 2835.5 | -6.5 |
| 14/ | 0100 1010 | 2803.75 | 2854.6 | -1.1 | -0.0 | 25.5 | 2851.4 | 4.2 |
| 14/ | 0100 1001 | 2819.38 | 2866.7 | 0.1 | 0.2 | 12.1 | 2867.3 | -0.6 |

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HS-216 THERMALIC MALETR MUX UNIT TEST MOD1.. FTL S/N 3 PAGE 314

1981/11/30 12:26:41 DENSITY FULL PERFORMANCE @ AMBIENT TEMP.

TEST #1 - 11 AND THRESHOLD TEST CHAN= 2, SENSOR=6



REV 10 81

| THRESHOLD AND OUTPUT
NUMBER | THRESHOLD | TOTAL
VALUE
(KV) | ANALOG INPUT VOLTAGE (KV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------------------|-----------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3290.9 | 0.1 | 0.0 | 17.9 | 3296.3 | -5.4 |
| 211 | 0010 1101 | 3256.88 | 3311.1 | 0.1 | 0.2 | 20.1 | 3312.2 | -1.1 |
| 212 | 0010 1100 | 3272.50 | 3325.5 | -0.0 | 0.2 | 14.4 | 3328.1 | -2.6 |
| 213 | 0010 1011 | 3288.13 | 3339.5 | -0.3 | -0.2 | 14.0 | 3344.0 | -4.5 |
| 214 | 0010 1010 | 3303.75 | 3353.7 | -0.3 | -0.2 | 26.1 | 3359.9 | 5.8 |
| 215 | 0010 1001 | 3319.38 | 3376.4 | 1.0 | 0.1 | 10.7 | 3375.8 | 0.6 |
| 216 | 0010 1000 | 3335.00 | 3397.2 | 0.1 | 0.3 | 20.8 | 3391.7 | 5.6 |
| 217 | 0010 0111 | 3350.63 | 3401.0 | -0.2 | -0.0 | 3.8 | 3407.6 | -6.5 |
| 218 | 0010 0110 | 3366.25 | 3421.3 | -0.4 | -0.3 | 20.3 | 3423.5 | -2.1 |
| 219 | 0010 0101 | 3381.88 | 3439.7 | -0.1 | -0.2 | 17.9 | 3439.3 | -0.1 |
| 220 | 0010 0100 | 3397.50 | 3462.2 | 0.1 | 0.2 | 23.0 | 3455.2 | 7.0 |
| 221 | 0010 0011 | 3413.13 | 3467.3 | 0.1 | 0.3 | 5.1 | 3471.1 | -3.8 |
| 222 | 0010 0010 | 3428.75 | 3489.4 | -0.1 | 6.2 | 22.0 | 3487.0 | 2.3 |
| 223 | 0010 0001 | 3444.38 | 3504.3 | -0.2 | -0.2 | 15.0 | 3502.9 | 1.4 |
| 224 | 0010 0000 | 3460.00 | 3522.7 | 0.3 | 0.2 | 18.4 | 3518.8 | 3.2 |
| | | | | | | | | |
| 225 | 0001 1111 | 3475.63 | 3529.7 | 0.1 | 0.2 | 6.5 | 3534.7 | -5.5 |
| 226 | 0001 1110 | 3491.25 | 3546.2 | -0.1 | 0.4 | 17.0 | 3550.6 | -4.4 |
| 227 | 0001 1101 | 3506.88 | 3567.8 | -0.3 | 0.2 | 21.6 | 3566.5 | 1.4 |
| 228 | 0001 1100 | 3522.50 | 3579.5 | -0.2 | -0.3 | 11.9 | 3582.4 | -2.7 |
| 229 | 0001 1011 | 3538.13 | 3596.0 | 0.1 | 0.2 | 16.4 | 3598.2 | 2.2 |
| 230 | 0001 1010 | 3553.75 | 3621.0 | 0.1 | 0.3 | 25.0 | 3614.1 | 6.9 |
| 231 | 0001 1001 | 3569.38 | 3634.6 | -0.2 | 0.1 | 13.6 | 3630.0 | 4.6 |
| 232 | 0001 1000 | 3585.00 | 3647.5 | -0.4 | -0.3 | 10.9 | 3645.9 | -0.4 |
| 233 | 0001 0111 | 3600.63 | 3658.0 | -0.1 | -0.2 | 12.4 | 3661.8 | -3.8 |
| 234 | 0001 0110 | 3616.25 | 3677.4 | 0.2 | 0.4 | 19.4 | 3677.7 | -0.3 |
| 235 | 0001 0101 | 3631.88 | 3696.2 | 0.1 | 0.2 | 18.8 | 3693.6 | 2.6 |
| 236 | 0001 0100 | 3647.50 | 3715.8 | -0.3 | -0.2 | 19.6 | 3709.5 | 6.1 |

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SECRET - SECURITY INFORMATION
S I R S E C Y

HAC
TFST
527

NOV 30 1981

FOR 10 KITS (MODEL 7) THRESHOLD INCREMENT(4/- 0.0 - THRESH INC = 31.2)
IF REQUIRED, DATA AND FOR INFORMATION ONLY

LEFT FT STRAIGHT LINE IS: $Y = 15.860X - 34.940$

```

DURATION OF SLEEP FROM TOTAL IS: 1.632%
OBJECT IS:-34.7MV
COEFFICIENT OF DETERMINATION IS: R**2= .99998810
AFTER, INDI DURING DC RESTORE IS:64.4MV

```

RMS ERROR = 4.349MV REFIN: RMS ERROR <=7.817MV

[illegible]

| MAXIMUM | MINIMUM | DIFFERENCE | MINIMUM | THRESHOLD | STANDARD DEVIATION |
|---------|---------|------------|---------|-----------|--------------------|
| 26.86MV | 23.8 | 15.939MV | 4.0MV | 119 | 4.979MV |

U N D E R S T A N D I N G T H E C O N T E N T S O F T H E S E P A G E S B E F O R E U S I N G T H E M - 1 3 0

| ANYTHING | THE GLEND | OFFICE | MINIMUM | THE GLEND | STANDARD DEVIATION |
|----------|-----------|----------|---------|-----------|--------------------|
| 0.910 | 7 | -0.04810 | -4.300 | 155 | .51910 |

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 11-14-2011 BY 60322 UCBAW

| | | | | | |
|-------|--------------|---------|---------|--------------|--------------------|
| MEAN | THIS SHEED # | AVERAGE | MINIMUM | THIS SHEED # | STANDARD DEVIATION |
| 4.430 | 124 | 0.01200 | -0.980 | 100 | .54000 |

ISSN 1-56-6210

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4.1. 125-14 000 FREQUENCY IS 2040 CHAND= 25 HENSEN=2

REV 30 74

| REFERENCE AND OUTPUT
NUMBER | THRESHOLD | DIGITAL
VALUE
(MV) | ANALOG INPUT VOLTAGE
LEVELS RATIO-
NOMINAL | DIFFER
TOWER | DIFFER
1:1 | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT | DEVIATION |
|--------------------------------|-----------|--------------------------|--|-----------------|---------------|------------------------------------|---------------------------------|-----------|
| 52 | 1100 | 1100 | 772.500 | 793.1 | -0.2 | -0.2 | 796.8 | 2.3 |
| 53 | 1100 | 1011 | 808.125 | 806.5 | -0.0 | -0.4 | 806.7 | -0.2 |
| 54 | 1100 | 1010 | 803.750 | 827.2 | 0.5 | 0.4 | 827.6 | 4.4 |
| 55 | 1100 | 1001 | 819.375 | 844.0 | 0.5 | 0.4 | 838.5 | 5.6 |
| 56 | 1100 | 1000 | 835.000 | 862.1 | -0.5 | -0.0 | 859.4 | 7.7 |
| 57 | 1100 | 0111 | 850.625 | 867.2 | -0.4 | -0.4 | 870.2 | -3.1 |
| 58 | 1100 | 0110 | 865.250 | 886.1 | -0.0 | -0.6 | 886.1 | 0.0 |
| 59 | 1100 | 0101 | 881.875 | 904.8 | 0.4 | 0.4 | 902.0 | 2.8 |
| 60 | 1100 | 0100 | 897.500 | 924.6 | 0.0 | 0.3 | 917.9 | 6.8 |
| 61 | 1100 | 0011 | 913.125 | 933.3 | -0.5 | -0.5 | 933.8 | -0.5 |
| 62 | 1100 | 0010 | 928.750 | 954.5 | -0.6 | -0.6 | 949.6 | 4.9 |
| 63 | 1100 | 0001 | 944.375 | 969.2 | 0.2 | 0.0 | 965.5 | 3.7 |
| 64 | 1100 | 0000 | 956.000 | 977.4 | 0.4 | 0.4 | 981.4 | -4.0 |
| | | | | | | | | |
| 65 | 1011 | 1111 | 975.625 | 994.8 | 0.0 | 0.4 | 997.3 | -2.5 |
| 66 | 1011 | 1110 | 991.250 | 1011.4 | -0.6 | -0.6 | 1011.2 | -1.7 |
| 67 | 1011 | 1101 | 1006.875 | 1034.8 | -0.0 | -0.4 | 1029.6 | 5.8 |
| 68 | 1011 | 1100 | 1022.500 | 1045.9 | 0.5 | 0.6 | 1044.9 | 1.9 |
| 69 | 1011 | 1011 | 1038.125 | 1060.9 | 0.5 | 0.4 | 1060.8 | 0.1 |
| 70 | 1011 | 1010 | 1053.750 | 1082.4 | -0.5 | 0.0 | 1076.7 | 5.8 |
| 71 | 1011 | 1001 | 1069.375 | 1099.2 | -0.4 | -0.4 | 1092.6 | 6.6 |
| 72 | 1011 | 1000 | 1085.000 | 1106.7 | -0.3 | -0.5 | 1108.4 | -1.7 |
| 73 | 1011 | 0111 | 1100.625 | 1121.6 | 0.4 | 0.4 | 1124.3 | -2.7 |
| 74 | 1011 | 0110 | 1116.250 | 1139.9 | 0.1 | 0.6 | 1140.2 | -0.3 |
| 75 | 1011 | 0101 | 1131.875 | 1161.8 | -0.4 | -0.4 | 1156.1 | 5.7 |
| 76 | 1011 | 0100 | 1147.500 | 1175.9 | -0.4 | -0.4 | 1172.0 | 4.0 |
| 77 | 1011 | 0011 | 1163.125 | 1187.6 | 0.4 | -0.0 | 1187.8 | -0.2 |
| 78 | 1011 | 0010 | 1178.750 | 1208.2 | 0.5 | 0.5 | 1209.7 | 4.5 |

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HS-235 THERMATIC MAPPING UNIT TEST MODEL 11 T. S/N 3 PAGE 320

1981/11/30 12:33:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4.15.11.12-11 6/13 THERMATIC UNIT TEST CHANNEL=2 SENSOR=7

HAC
TFST
S27

| TEST POINT
NUMBER | X/YZ OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM THRESHOLD | BEST FIT STRAIGHT LINE | |
|----------------------|--------------------------|------------------------|---------------------------|-------|-------|----------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 77 | 1011 0001 | 1194.38 | 1223.9 | 0.0 | 1.4 | 15.7 | 1219.6 | 4.4 |
| 80 | 1011 0000 | 1210.00 | 1234.9 | -0.1 | -0.2 | 11.0 | 1235.5 | -0.5 |
| 81 | 1010 1111 | 1225.63 | 1247.9 | 0.0 | -0.4 | 13.0 | 1251.4 | -3.4 |
| 82 | 1010 1110 | 1241.25 | 1263.7 | 0.5 | 0.5 | 15.8 | 1267.2 | -3.5 |
| 83 | 1010 1101 | 1256.88 | 1286.9 | 0.4 | 0.3 | 23.2 | 1283.1 | 3.8 |
| 84 | 1010 1100 | 1272.50 | 1299.8 | -0.3 | 0.0 | 12.9 | 1299.0 | 0.8 |
| 85 | 1010 1011 | 1288.13 | 1313.8 | -0.3 | -0.3 | 14.0 | 1314.9 | -1.0 |
| 86 | 1010 1010 | 1303.75 | 1335.5 | -0.8 | -0.5 | 21.6 | 1330.8 | 4.7 |
| 87 | 1010 1001 | 1319.38 | 1351.3 | 0.5 | 0.5 | 15.8 | 1346.6 | 4.6 |
| 88 | 1010 1000 | 1335.00 | 1364.5 | 0.0 | 0.3 | 13.2 | 1362.5 | 2.0 |
| 89 | 1010 0111 | 1350.63 | 1374.5 | -0.4 | -0.5 | 10.0 | 1378.4 | -3.9 |
| 90 | 1010 0110 | 1366.25 | 1393.1 | -0.6 | 0.6 | 18.6 | 1394.3 | -1.1 |
| 91 | 1010 0101 | 1381.88 | 1411.8 | 0.4 | -0.0 | 18.7 | 1410.2 | 1.7 |
| 92 | 1010 0100 | 1397.50 | 1432.6 | 0.3 | 0.3 | 20.8 | 1426.0 | 6.6 |
| 93 | 1010 0011 | 1413.13 | 1439.9 | 0.0 | 0.5 | 7.3 | 1441.9 | -2.0 |
| 94 | 1010 0010 | 1428.75 | 1461.3 | -0.5 | -0.5 | 21.4 | 1457.8 | 3.5 |
| 95 | 1010 0001 | 1444.38 | 1478.0 | 0.0 | -0.5 | 16.7 | 1473.7 | 4.3 |
| 96 | 1010 0000 | 1460.00 | 1491.3 | 0.3 | 0.3 | 13.3 | 1489.6 | 1.8 |
| 97 | 1001 1111 | 1475.63 | 1500.4 | 0.5 | 0.4 | 9.0 | 1505.4 | -5.1 |
| 98 | 1001 1110 | 1491.25 | 1516.4 | -0.5 | 0.0 | 16.0 | 1521.3 | -4.9 |
| 99 | 1001 1101 | 1506.88 | 1540.1 | -0.4 | -0.4 | 23.7 | 1537.2 | 2.9 |
| 100 | 1001 1100 | 1522.50 | 1553.0 | -0.1 | -0.9 | 12.9 | 1553.1 | -0.1 |
| 101 | 1001 1011 | 1538.13 | 1566.4 | 0.4 | 0.4 | 13.4 | 1569.0 | -2.5 |
| 102 | 1001 1010 | 1553.75 | 1586.8 | 0.0 | 0.5 | 20.4 | 1584.8 | 1.9 |
| 103 | 1001 1001 | 1569.38 | 1604.7 | -0.5 | -0.5 | 17.9 | 1600.7 | 4.0 |
| 104 | 1001 1000 | 1585.00 | 1614.3 | -0.5 | -0.5 | 9.6 | 1616.6 | -2.3 |

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NOV 30 '88

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| WLS SKEWED
SIGNAL | A/D OUTPUT
(THRESHOLD) | DFAI
VALUE
(192) | ANALOG INPUT VOLTAGE (MU)
LEVELS RATIO-
NOMINAL LOWER | DIFFER
1:1
DIFFER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION | | |
|----------------------|---------------------------|------------------------|---|-------------------------|------------------------------------|---|--------|------|
| 101 | 1001 0111 | 1600.63 | 1627.0 | 0.5 | 0.0 | 12.6 | 1632.5 | -5.5 |
| 106 | 1001 0110 | 1616.25 | 1644.7 | 0.5 | 0.5 | 12.8 | 1648.4 | -3.6 |
| 107 | 1001 0101 | 1631.88 | 1664.2 | -0.1 | 0.4 | 20.0 | 1664.2 | 0.5 |
| 108 | 1001 0100 | 1647.50 | 1681.9 | -0.3 | 0.3 | 12.1 | 1680.1 | 1.8 |
| 109 | 1001 0011 | 1663.13 | 1693.3 | 0.0 | 0.4 | 11.4 | 1696.0 | -2.7 |
| 110 | 1001 0010 | 1678.75 | 1716.5 | 0.4 | 0.4 | 23.2 | 1716.9 | -4.6 |
| 111 | 1001 0001 | 1694.38 | 1730.5 | 0.5 | 0.4 | 14.0 | 1727.8 | 2.8 |
| 112 | 1001 0000 | 1710.00 | 1743.8 | -0.3 | 0.0 | 13.2 | 1743.6 | 0.1 |
| 113 | 1000 1111 | 1725.63 | 1753.2 | -0.5 | -0.4 | 9.4 | 1759.5 | -6.3 |
| 114 | 1000 1110 | 1741.25 | 1769.0 | -0.1 | -0.6 | 15.8 | 1775.4 | -6.9 |
| 115 | 1000 1101 | 1756.88 | 1792.1 | 0.4 | 0.4 | 23.1 | 1791.3 | 0.8 |
| 116 | 1000 1100 | 1772.50 | 1804.3 | 0.0 | 0.3 | 12.1 | 1807.2 | -2.9 |
| 117 | 1000 1011 | 1788.13 | 1819.2 | -0.5 | -0.5 | 18.9 | 1823.0 | -3.9 |
| 118 | 1000 1010 | 1803.75 | 1840.2 | -0.5 | -0.5 | 21.0 | 1838.9 | 1.3 |
| 119 | 1000 1001 | 1819.38 | 1856.5 | 0.5 | 3.0 | 16.2 | 1854.8 | 1.7 |
| 120 | 1000 1000 | 1835.00 | 1873.6 | 0.4 | 0.4 | 12.2 | 1876.2 | 3.0 |
| 121 | 1000 0111 | 1850.63 | 1879.2 | -0.0 | 1.4 | 15.5 | 1886.6 | -2.4 |
| 122 | 1000 0110 | 1866.25 | 1892.7 | -0.7 | 0.6 | 18.5 | 1902.1 | -4.7 |
| 123 | 1000 0101 | 1881.88 | 1917.4 | 6.3 | 1.5 | 19.7 | 1918.3 | -0.9 |
| 124 | 1000 0100 | 1897.50 | 1936.2 | 0.4 | 0.7 | 19.1 | 1924.2 | 2.5 |
| 125 | 1000 0011 | 1913.13 | 1944.9 | 0.5 | 0.5 | 8.2 | 1930.1 | -5.2 |
| 126 | 1000 0010 | 1928.75 | 1955.8 | -0.5 | 3.0 | 20.9 | 1966.0 | -0.2 |
| 127 | 1000 0001 | 1944.38 | 1983.1 | -0.5 | -0.5 | 12.3 | 1981.8 | 1.3 |
| 128 | 1000 0000 | 1960.00 | 1992.8 | 0.1 | -6.4 | 9.2 | 1997.2 | -4.9 |
| 129 | 0111 1111 | 1975.63 | 2008.2 | 0.4 | 0.4 | 15.4 | 2013.6 | -5.4 |
| 130 | 0111 1110 | 1991.25 | 2025.3 | 0.0 | 0.6 | 12.0 | 2029.5 | -4.2 |

S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. 5/2/83 PAGE 327

981/11/70 12:33:17 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1111111111 AND THRESHOLD TEST CRAND= 2. SENSOR=7

HAC
TEST
S27

| RESHOLD AND OUTPUT
NUMBER | THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|------------------------------|-----------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2045.9 | -0.5 | -0.5 | 20.6 | 2045.4 | 0.5 |
| 132 | 0111 1100 | 2022.50 | 2063.2 | -0.9 | 0.6 | 17.4 | 2061.2 | 2.0 |
| 133 | 0111 1011 | 2038.13 | 2074.3 | 0.5 | 0.0 | 11.0 | 2077.1 | -2.9 |
| 134 | 0111 1010 | 2053.75 | 2097.4 | 0.6 | 0.6 | 23.2 | 2093.0 | 4.4 |
| 135 | 0111 1001 | 2069.38 | 2111.4 | 0.0 | 0.5 | 14.0 | 2108.9 | 2.6 |
| 136 | 0111 1000 | 2085.00 | 2121.2 | -0.8 | -0.8 | 9.7 | 2124.8 | -3.6 |
| 137 | 0111 0111 | 2100.63 | 2135.4 | -0.1 | -0.5 | 14.2 | 2140.6 | -5.2 |
| 138 | 0111 0110 | 2116.25 | 2154.3 | 0.6 | 0.5 | 18.8 | 2156.5 | -2.2 |
| 139 | 0111 0101 | 2131.88 | 2172.1 | 0.5 | 0.4 | 17.8 | 2172.4 | -0.3 |
| 140 | 0111 0100 | 2147.50 | 2191.2 | -0.4 | 0.0 | 19.0 | 2188.3 | 2.9 |
| 141 | 0111 0011 | 2163.13 | 2201.3 | -0.4 | -0.4 | 10.2 | 2204.2 | -2.8 |
| 142 | 0111 0010 | 2178.75 | 2223.0 | 0.1 | -0.6 | 21.6 | 2220.0 | 3.0 |
| 143 | 0111 0001 | 2194.38 | 2237.5 | 0.5 | 0.5 | 14.5 | 2235.9 | 1.6 |
| 144 | 0111 0000 | 2210.00 | 2246.2 | -0.0 | 0.3 | 8.7 | 2251.8 | -5.6 |
| 145 | 0110 1111 | 2225.63 | 2261.5 | -0.5 | -0.5 | 15.2 | 2267.7 | -6.2 |
| 146 | 0110 1110 | 2241.25 | 2278.6 | -0.5 | -0.6 | 17.2 | 2281.6 | -4.9 |
| 147 | 0110 1101 | 2256.88 | 2301.6 | 0.4 | 0.0 | 23.0 | 2299.4 | 2.2 |
| 148 | 0110 1100 | 2272.50 | 2314.7 | 0.1 | 0.1 | 13.0 | 2315.3 | -0.6 |
| 149 | 0110 1011 | 2288.13 | 2327.4 | -0.5 | 0.0 | 12.7 | 2331.2 | -3.8 |
| 150 | 0110 1010 | 2303.75 | 2351.2 | -0.5 | -0.6 | 23.8 | 2347.1 | 4.1 |
| 151 | 0110 1001 | 2319.38 | 2364.7 | -0.1 | -0.6 | 13.5 | 2363.0 | 1.8 |
| 152 | 0110 1000 | 2335.00 | 2378.2 | 0.4 | 0.4 | 13.4 | 2378.8 | -0.7 |
| 153 | 0110 0111 | 2350.63 | 2387.6 | 0.4 | 0.3 | 9.4 | 2394.7 | -2.1 |
| 154 | 0110 0110 | 2366.25 | 2407.5 | -0.6 | -0.0 | 19.9 | 2410.6 | -3.1 |
| 155 | 0110 0101 | 2381.88 | 2429.0 | -4.3 | -0.6 | 21.5 | 2426.5 | 2.5 |
| 156 | 0110 0100 | 2397.50 | 2447.9 | 0.3 | 0.0 | 18.9 | 2442.4 | 5.6 |
| 157 | 0110 0011 | 2413.13 | 2453.4 | 0.4 | 0.4 | 5.5 | 2458.2 | -4.8 |

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NOV 30 '81

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527

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| ITEM NO. | SIZE (INCHES) | TYPE | ANALOG INPUT SURFACE | | VOLTAGE | | RESISTANCE STRAIGHT LINE | |
|----------|---------------|------|----------------------|-------|---------|------|--------------------------|------|
| | | | NOMINAL | ERROR | 1-21 | 1-24 | 1-24 | 1-24 |
| 10 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 11 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 12 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 13 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 14 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 15 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 16 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 17 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 18 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 19 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 20 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 21 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 22 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 23 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 24 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 25 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 26 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 27 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 28 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 29 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 30 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 31 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 32 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 33 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 34 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 35 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 36 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 37 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 38 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 39 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 40 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 41 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 42 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 43 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 44 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 45 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 46 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 47 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 48 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 49 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |
| 50 | 0.150 | 110 | 1000.0 | -0.1 | 10.0 | 10.0 | 10.0 | -0.1 |

HS-276 THETATIC MAPPER MUX UNIT TEST MODUL. 111, S/N 3 PAGE 376

1981/11/30 12:33:12 PENALTY FOR PERFORMANCE & AMBIENT TEMP.

CH. 111.11.11-11 AND THETIC MUX UNIT TEST CHANNEL 2. SENSORS=7

HAC
TRST
S27

NOV 30 '81

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|--------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3727.6 | 0.6 | 0.5 | 3728.6 | -1.0 |
| 238 | 0001 0010 | 3678.75 | 3754.4 | -0.7 | 0.0 | 3744.5 | 9.9 |
| 239 | 0001 0001 | 3694.38 | 3765.9 | -0.6 | -0.6 | 3760.4 | 5.6 |
| 240 | 0001 0000 | 3710.00 | 3784.5 | 0.3 | 0.1 | 3776.3 | 8.3 |
| 241 | 0000 1111 | 3725.63 | 3789.8 | 0.3 | 0.5 | 3792.2 | -2.4 |
| 242 | 0000 1110 | 3741.25 | 3805.2 | -0.1 | 0.6 | 3808.0 | -2.8 |
| 243 | 0000 1101 | 3756.88 | 3830.4 | -0.3 | -0.4 | 3823.9 | 6.5 |
| 244 | 0000 1100 | 3772.50 | 3842.1 | -0.3 | -0.3 | 3839.8 | 2.3 |
| 245 | 0000 1011 | 3788.13 | 3856.0 | 0.4 | 0.6 | 3855.7 | 0.4 |
| 246 | 0000 1010 | 3803.75 | 3879.2 | 0.4 | 0.5 | 3871.6 | 7.6 |
| 247 | 0000 1001 | 3819.38 | 3897.9 | -0.7 | 0.0 | 3887.4 | 10.5 |
| 248 | 0000 1000 | 3835.00 | 3913.8 | -0.4 | -0.6 | 3903.3 | 10.4 |
| 249 | 0000 0111 | 3850.63 | 3918.5 | -0.0 | 0.6 | 3919.2 | -0.7 |
| 250 | 0000 0110 | 3866.25 | 3936.4 | 0.6 | 0.8 | 3935.1 | 1.4 |
| 251 | 0000 0101 | 3881.88 | 3960.0 | 0.3 | 0.3 | 3951.0 | 9.0 |
| 252 | 0000 0100 | 3897.50 | 3980.1 | -0.7 | -0.5 | 3966.8 | 13.3 |
| 253 | 0000 0011 | 3913.13 | 3985.6 | -0.9 | -0.8 | 3982.7 | 2.9 |
| 254 | 0000 0010 | 3928.75 | 4011.9 | 0.4 | 0.1 | 4008.6 | 13.3 |
| 255 | 0000 0001 | 3944.38 | 4022.9 | 0.5 | 0.5 | 4014.5 | 8.4 |

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HAC
TFST
S.27

83' 30 '81

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OF POOR QUALITY

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | | |
|----|------|------|---------|-------|------|------|------|-------|------|
| 1 | 1111 | 1111 | -24.325 | -33.6 | -1.2 | -0.1 | | -25.9 | -7.7 |
| 2 | 1111 | 1110 | 8.750 | -14.7 | 0.3 | 0.3 | 18.8 | -10.0 | -4.7 |
| 3 | 1111 | 1101 | 6.875 | 3.3 | 0.3 | 0.3 | 18.0 | 5.8 | -2.5 |
| 4 | 1111 | 1100 | 22.500 | 20.2 | -0.3 | 0.0 | 16.9 | 21.7 | -1.5 |
| 5 | 1111 | 1011 | 38.125 | 33.5 | -0.3 | -0.3 | 13.3 | 37.6 | -4.0 |
| 6 | 1111 | 1010 | 53.750 | 55.3 | -0.1 | -0.3 | 21.7 | 53.5 | 1.8 |
| 7 | 1111 | 1001 | 69.375 | 70.1 | 0.4 | 0.4 | 14.8 | 69.3 | 0.8 |
| 8 | 1111 | 1000 | 85.000 | 86.3 | 0.1 | 0.4 | 16.2 | 85.2 | 1.1 |
| 9 | 1111 | 0111 | 100.625 | 94.8 | -0.3 | -0.3 | 8.4 | 101.1 | -6.3 |
| 10 | 1111 | 0110 | 116.250 | 116.2 | -0.4 | 0.4 | 21.4 | 117.0 | -0.8 |
| 11 | 1111 | 0101 | 131.875 | 131.5 | 0.3 | -0.0 | 15.3 | 132.0 | -1.4 |
| 12 | 1111 | 0100 | 147.500 | 152.7 | 0.2 | 0.4 | 21.2 | 148.7 | 4.0 |
| 13 | 1111 | 0011 | 163.125 | 161.6 | -0.3 | 0.0 | 8.9 | 164.6 | -3.0 |
| 14 | 1111 | 0010 | 178.750 | 185.7 | -0.3 | -0.4 | 23.0 | 180.5 | 5.2 |
| 15 | 1111 | 0001 | 194.375 | 193.5 | -0.1 | -0.3 | 11.3 | 196.3 | 2.1 |
| 16 | 1111 | 0000 | 210.000 | 209.7 | 0.2 | 0.2 | 11.2 | 212.2 | -2.5 |
| | | | | | | | | | |
| 17 | 1110 | 1111 | 225.625 | 222.0 | 0.2 | 0.2 | 12.2 | 228.1 | -6.1 |
| 18 | 1110 | 1110 | 241.250 | 241.3 | -0.4 | 0.1 | 19.3 | 244.0 | -2.7 |
| 19 | 1110 | 1101 | 256.875 | 259.9 | -0.7 | -0.5 | 19.6 | 259.9 | 0.1 |
| 20 | 1110 | 1100 | 272.500 | 278.5 | 0.2 | 0.0 | 18.6 | 275.7 | 2.8 |
| 21 | 1110 | 1011 | 288.125 | 288.6 | 0.2 | 0.3 | 10.1 | 291.6 | -3.0 |
| 22 | 1110 | 1010 | 303.750 | 310.5 | -0.1 | 0.4 | 21.8 | 307.5 | 3.0 |
| 23 | 1110 | 1001 | 319.375 | 325.8 | -0.4 | -0.3 | 15.4 | 323.4 | 2.5 |
| 24 | 1110 | 1000 | 335.000 | 342.5 | -0.5 | -0.5 | 21.7 | 339.2 | 8.3 |
| 25 | 1110 | 0111 | 350.625 | 349.8 | 0.4 | 0.0 | 2.3 | 355.1 | -5.3 |



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HS-216 THERMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 330

1981/11/30 12:39:53 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3-5-81 3-5-81-88 0/0 THRESHOLD TEST (RANGE 2, SENSOR=8)

HAC
TEST
S27

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|--------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 788.1 | -0.4 | -0.4 | 783.7 | 4.4 |
| 53 | 1100 1011 | 788.125 | 798.0 | 0.9 | 0.0 | 799.6 | -1.6 |
| 54 | 1100 1010 | 803.250 | 819.2 | 0.7 | 0.3 | 815.5 | 3.7 |
| 55 | 1100 1001 | 819.375 | 834.9 | -0.3 | -0.0 | 831.4 | 3.5 |
| 56 | 1100 1000 | 835.000 | 857.4 | -0.4 | -0.4 | 847.2 | 10.2 |
| 57 | 1100 0111 | 850.625 | 859.1 | 0.0 | -0.3 | 863.1 | -4.0 |
| 58 | 1100 0110 | 866.250 | 879.4 | 0.3 | 0.3 | 879.0 | 0.4 |
| 59 | 1100 0101 | 881.875 | 895.2 | 0.1 | 1.0 | 894.9 | 0.3 |
| 60 | 1100 0100 | 897.500 | 918.6 | -0.3 | -0.0 | 910.7 | 7.8 |
| 61 | 1100 0011 | 913.125 | 925.1 | -0.3 | -0.4 | 926.6 | -1.6 |
| 62 | 1100 0010 | 928.750 | 948.1 | 0.7 | 0.0 | 942.5 | 5.7 |
| 63 | 1100 0001 | 944.375 | 961.1 | 0.4 | 0.3 | 958.4 | 2.7 |
| 64 | 1100 0000 | 960.000 | 973.7 | 3.0 | 0.1 | 974.2 | -0.5 |
| | | | | | | | |
| 65 | 1011 1111 | 975.625 | 987.1 | -0.3 | -0.3 | 990.1 | -3.0 |
| 66 | 1011 1110 | 991.250 | 1005.2 | -0.3 | -0.3 | 1006.0 | -0.8 |
| 67 | 1011 1101 | 1006.875 | 1024.2 | 0.3 | 0.0 | 1021.9 | 2.3 |
| 68 | 1011 1100 | 1022.500 | 1038.5 | 0.3 | 0.4 | 1037.7 | 0.8 |
| 69 | 1011 1011 | 1038.125 | 1053.1 | -0.2 | 0.1 | 1053.6 | -0.5 |
| 70 | 1011 1010 | 1053.750 | 1074.1 | -0.4 | -0.3 | 1069.5 | 4.6 |
| 71 | 1011 1001 | 1069.375 | 1089.6 | 0.0 | -0.3 | 1085.4 | 4.3 |
| 72 | 1011 1000 | 1085.000 | 1104.5 | 0.2 | 0.2 | 1101.2 | 3.7 |
| 73 | 1011 0111 | 1100.625 | 1113.5 | 0.3 | 0.3 | 1117.1 | -3.6 |
| 74 | 1011 0110 | 1116.250 | 1134.3 | -0.4 | -0.4 | 1137.0 | 1.3 |
| 75 | 1011 0101 | 1131.875 | 1151.1 | -0.2 | -0.4 | 1148.9 | 2.2 |
| 76 | 1011 0100 | 1147.500 | 1169.9 | 0.7 | 0.0 | 1164.7 | 5.2 |
| 77 | 1011 0011 | 1163.125 | 1179.4 | 0.3 | 0.3 | 1180.6 | -1.2 |
| 78 | 1011 0010 | 1178.750 | 1202.6 | 0.1 | 0.3 | 1196.5 | 6.1 |

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HS 2% THERMATIC MATTER MIX UNIT TEST MODEL 1.117 S/N 3 PAGE 331

1981/11/30 12:39:13 CUMULATIVE FUEL PERFORMANCE @ AMBIENT TEMP.

14.1.1 1.15-11 2.225 11465-54011117 11511 1.15-11 2.225 11465-54011117 11511 1.15-11 2.225 11465-54011117 11511

HAC
TEST
527

REV 30 '81

| THRESHOLD AND OUTPUT
NUMBER | THRESHOLD | IDEAL
VALUE
(%) | ANALOG INPUT VOLTAGE (NO) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------------------|-----------|-----------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 77 | 1011 0001 | 1294.38 | 1216.2 | -0.3 | -0.3 | 13.7 | 1211.4 | 3.9 |
| 86 | 1011 0000 | 1210.00 | 1229.1 | -0.2 | -0.3 | 12.9 | 1228.2 | 0.9 |
| 81 | 1010 1111 | 1229.53 | 1239.5 | 0.3 | 0.3 | 10.4 | 1242.1 | -4.6 |
| 82 | 1010 1110 | 1231.25 | 1257.7 | 0.3 | 0.3 | 13.1 | 1260.1 | -2.3 |
| 83 | 1010 1101 | 1232.98 | 1277.2 | -0.3 | 0.1 | 19.5 | 1275.9 | 1.3 |
| 84 | 1010 1100 | 1222.50 | 1294.6 | -0.3 | -0.3 | 17.4 | 1291.8 | 2.9 |
| 85 | 1010 1011 | 1231.13 | 1305.7 | 0.0 | -0.3 | 11.1 | 1307.6 | -1.9 |
| 86 | 1010 1010 | 1301.25 | 1326.3 | 0.3 | 0.3 | 20.5 | 1323.5 | 2.8 |
| 87 | 1010 1001 | 1312.38 | 1341.8 | 0.3 | 0.3 | 15.4 | 1339.4 | 7.4 |
| 88 | 1010 1000 | 1335.00 | 1363.5 | -2.3 | -0.6 | 21.7 | 1375.3 | -3.3 |
| 89 | 1010 0111 | 1331.53 | 1366.3 | 0.4 | 0.4 | 2.8 | 1371.1 | -4.8 |
| 90 | 1010 0110 | 1336.25 | 1386.4 | 0.4 | 0.0 | 20.1 | 1387.0 | -0.6 |
| 91 | 1010 0101 | 1331.25 | 1403.2 | 0.3 | 0.3 | 16.7 | 1402.9 | 0.3 |
| 92 | 1010 0100 | 1322.50 | 1424.5 | 0.0 | 0.5 | 21.3 | 1416.3 | 1.7 |
| 93 | 1010 0011 | 1331.13 | 1431.1 | -0.4 | 0.3 | 7.7 | 1434.6 | 2.5 |
| 94 | 1010 0010 | 1322.25 | 1452.4 | -0.3 | 0.3 | 23.2 | 1450.5 | 1.9 |
| 95 | 1010 0001 | 1334.38 | 1468.2 | 0.1 | 0.3 | 12.8 | 1466.4 | 1.8 |
| 96 | 1010 0000 | 1331.00 | 1487.0 | 0.2 | 0.4 | 19.8 | 1482.3 | 4.7 |
| 97 | 1001 1111 | 1421.53 | 1493.0 | -0.3 | -0.0 | 6.0 | 1490.1 | -5.1 |
| 98 | 1001 1110 | 1491.25 | 1510.9 | -0.2 | 0.5 | 17.9 | 1514.0 | -3.1 |
| 99 | 1001 1101 | 1502.98 | 1530.3 | -0.1 | -0.3 | 19.4 | 1529.9 | 0.5 |
| 100 | 1001 1100 | 1522.50 | 1544.1 | 0.3 | 0.3 | 13.7 | 1545.3 | -1.7 |
| 101 | 1001 1011 | 1531.13 | 1558.6 | 0.2 | 0.3 | 14.5 | 1561.6 | -3.0 |
| 102 | 1001 1010 | 1521.25 | 1578.9 | -0.2 | -0.3 | 20.3 | 1577.5 | 1.4 |
| 103 | 1001 1001 | 1529.38 | 1595.2 | -0.4 | -0.3 | 16.2 | 1593.4 | 1.8 |
| 104 | 1001 1000 | 1535.00 | 1613.1 | 0.2 | 0.0 | 17.9 | 1609.3 | 3.8 |

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17-00000 2-11-19



| THRESHOLD NUMBER | X/ZD | OUTPUT THRESHOLD | LOCAL | ANALOG INPUT UTILIZATION | | NO. | DIFFERENCE FROM PREVIOUS THRESHOLD | BEST FIT STRAIGHT LINE | |
|------------------|------|------------------|-------------|--------------------------|--------------|------------|------------------------------------|------------------------|------------|
| | | | VALUE (FNU) | NOMINAL | LEVELS RATIO | 1:1 CENTER | | POINT | DEFLECTION |
| 131 | 0111 | 1101 | 2006.88 | 2037.7 | -0.3 | -0.4 | 17.9 | 2037.9 | -0.2 |
| 132 | 0111 | 1100 | 2022.50 | 2053.7 | 0.3 | 0.0 | 17.9 | 2053.6 | -0.1 |
| 133 | 0111 | 1011 | 2038.13 | 2066.4 | 0.3 | 0.4 | 12.7 | 2069.6 | -3.3 |
| 134 | 0111 | 1010 | 2053.75 | 2088.6 | -0.0 | 0.3 | 22.2 | 2085.5 | 3.1 |
| 135 | 0111 | 1001 | 2069.38 | 2102.0 | -0.4 | -0.4 | 14.2 | 2101.4 | 1.4 |
| 136 | 0111 | 1000 | 2085.00 | 2118.3 | 0.4 | 0.4 | 15.5 | 2117.3 | 1.0 |
| 137 | 0111 | 0111 | 2100.63 | 2127.0 | 0.3 | 0.3 | 8.7 | 2133.1 | -6.1 |
| 138 | 0111 | 0110 | 2116.25 | 2148.4 | 0.3 | 0.4 | 21.4 | 2149.0 | -0.4 |
| 139 | 0111 | 0101 | 2131.88 | 2164.7 | -0.3 | -0.1 | 15.6 | 2164.9 | -0.7 |
| 140 | 0111 | 0100 | 2147.50 | 2185.5 | -0.4 | -0.3 | 21.3 | 2180.8 | 4.7 |
| 141 | 0111 | 0011 | 2163.13 | 2193.7 | 0.0 | -0.3 | 7.7 | 2193.6 | -3.4 |
| 142 | 0111 | 0010 | 2178.75 | 2217.1 | 0.3 | 0.4 | 23.9 | 2219.5 | -4.4 |
| 143 | 0111 | 0001 | 2194.38 | 2249.2 | 0.3 | 0.2 | 12.0 | 2228.4 | 0.8 |
| 144 | 0111 | 0000 | 2210.00 | 2241.0 | -0.3 | -0.2 | 11.8 | 2244.3 | -3.3 |
| | | | | | | | | | |
| 145 | 0110 | 1111 | 2225.63 | 2253.5 | -0.3 | -0.4 | 12.5 | 2263.1 | -6.7 |
| 146 | 0110 | 1110 | 2241.25 | 2272.3 | 0.4 | 0.0 | 18.8 | 2274.0 | -3.7 |
| 147 | 0110 | 1101 | 2256.88 | 2290.1 | 0.3 | 0.3 | 12.8 | 2291.9 | -1.8 |
| 148 | 0110 | 1100 | 2272.50 | 2309.5 | 0.0 | 0.4 | 19.4 | 2307.0 | 1.7 |
| 149 | 0110 | 1011 | 2288.13 | 2319.7 | -0.4 | -0.4 | 9.8 | 2322.7 | -4.3 |
| 150 | 0110 | 1010 | 2303.75 | 2341.4 | -0.3 | -1.3 | 22.1 | 2339.5 | 1.9 |
| 151 | 0110 | 1001 | 2319.38 | 2354.9 | 0.3 | 0.3 | 13.5 | 2355.4 | -0.5 |
| 152 | 0110 | 1000 | 2335.00 | 2374.4 | 0.5 | 0.5 | 19.5 | 2371.3 | 3.2 |
| 153 | 0110 | 0111 | 2350.63 | 2380.0 | -0.3 | -0.1 | 5.6 | 2387.2 | -7.2 |
| 154 | 0110 | 0110 | 2366.25 | 2401.4 | -0.4 | -0.2 | 21.4 | 2403.0 | -1.6 |
| 155 | 0110 | 0101 | 2381.88 | 2416.7 | 0.0 | -0.3 | 15.3 | 2418.9 | -2.2 |
| 156 | 0110 | 0100 | 2397.50 | 2440.7 | 0.4 | 0.3 | 23.9 | 2434.8 | 5.9 |
| 157 | 0110 | 0011 | 2413.13 | 2445.3 | 0.3 | 0.4 | 4.6 | 2450.7 | -5.3 |

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HS 215 THERMATIC MATTER MIX UNIT TEST MODIT .. 111. S/N 3 PAGE 334

1981/11/30 12:39:53 TUNING FULL PERFORMANCE @ AMBIENT TEMP.

100 "100.00" 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00

HAC
TEST
S27

NOV 30 '81

| THERMISTOR NO. | THERMISTOR | THERMISTOR | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THERMISTOR | BEST FIT STRAIGHT LINE | |
|----------------|------------|------------|------------------------|---------------------------|-------|-------|-------------------------------------|------------------------|-----------|
| | | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 | 0010 | 2428.75 | 2470.1 | -0.5 | -0.4 | 24.7 | 2466.5 | 3.6 |
| 159 | 0110 | 0001 | 2444.36 | 2481.7 | -0.3 | -0.3 | 11.6 | 2482.4 | -0.7 |
| 160 | 0110 | 0000 | 2460.00 | 2498.7 | 0.4 | 0.0 | 17.0 | 2498.3 | 0.4 |
| 161 | 0101 | 1111 | 2475.63 | 2506.2 | 0.4 | 0.4 | 7.5 | 2514.2 | -7.9 |
| 162 | 0101 | 1110 | 2491.25 | 2524.8 | -0.1 | 0.4 | 18.6 | 2530.0 | -5.2 |
| 163 | 0101 | 1101 | 2506.88 | 2543.6 | -0.4 | -0.4 | 18.8 | 2545.9 | -7.3 |
| 164 | 0101 | 1100 | 2522.50 | 2559.7 | -0.3 | -0.3 | 16.1 | 2561.8 | -2.1 |
| 165 | 0101 | 1011 | 2538.13 | 2572.1 | 0.4 | 0.3 | 12.5 | 2577.7 | -5.5 |
| 166 | 0101 | 1010 | 2553.75 | 2593.6 | 0.4 | 0.3 | 21.5 | 2593.5 | 0.1 |
| 167 | 0101 | 1001 | 2569.38 | 2608.4 | -0.3 | -0.0 | 14.7 | 2609.4 | -1.0 |
| 168 | 0101 | 1000 | 2585.00 | 2627.2 | 0.0 | 0.4 | 18.8 | 2625.3 | 1.9 |
| 169 | 0101 | 0111 | 2600.63 | 2633.2 | 0.0 | 0.4 | 6.0 | 2641.2 | -7.9 |
| 170 | 0101 | 0110 | 2616.25 | 2653.7 | 0.3 | 0.4 | 20.4 | 2657.0 | -3.3 |
| 171 | 0101 | 0101 | 2631.88 | 2669.7 | 0.3 | 0.3 | 16.0 | 2672.9 | -3.2 |
| 172 | 0101 | 0100 | 2647.50 | 2691.2 | -0.3 | 0.2 | 21.5 | 2688.8 | 2.4 |
| 173 | 0101 | 0011 | 2663.13 | 2699.0 | -0.3 | -0.3 | 7.8 | 2704.7 | -5.7 |
| 174 | 0101 | 0010 | 2678.75 | 2722.4 | 0.3 | 0.1 | 23.4 | 2720.5 | 1.8 |
| 175 | 0101 | 0001 | 2694.38 | 2734.5 | 0.4 | 0.4 | 1.1 | 2736.4 | -1.9 |
| 176 | 0101 | 0000 | 2710.00 | 2754.7 | -0.1 | 0.2 | 20.2 | 2752.3 | 2.4 |
| 177 | 0100 | 1111 | 2725.63 | 2759.5 | -0.6 | -0.4 | 4.8 | 2768.2 | -8.7 |
| 178 | 0100 | 1110 | 2741.25 | 2778.1 | -0.4 | -0.4 | 18.6 | 2784.0 | -6.0 |
| 179 | 0100 | 1101 | 2756.88 | 2796.1 | 0.3 | 0.3 | 18.0 | 2799.9 | -3.8 |
| 180 | 0100 | 1100 | 2772.50 | 2815.1 | 0.4 | 0.5 | 19.1 | 2815.8 | -0.6 |
| 181 | 0100 | 1011 | 2788.13 | 2825.2 | -0.4 | 0.0 | 10.1 | 2831.7 | -6.4 |
| 182 | 0100 | 1010 | 2803.75 | 2847.1 | -0.4 | -0.4 | 21.9 | 2847.5 | -0.4 |
| 183 | 0100 | 1001 | 2819.38 | 2861.2 | -0.0 | -0.3 | 14.1 | 2863.4 | -2.2 |

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NOV 30 '81

ORIGINAL PAGE IS
OF POOR QUALITY

| THROUGH
NUMBER | AND
THROUGH | OUTPUT
THROUGH | LOCAL
VALUE
(%) | AGAI
DOMINANT | INPUT
FEEDS
TOWARD | OUTPUT
TOWARD | (MOV)
1-11
TOWARD | INCREASE
FROM PREVIOUS
THROUGH | BEST-FIT
POINT | STRAIGHT LINE
DEVIATION |
|-------------------|----------------|-------------------|-----------------------|------------------|--------------------------|------------------|-------------------------|--------------------------------------|-------------------|----------------------------|
| 187 | 0100 | 1000 | 2835.00 | 2884.8 | 0.4 | 0.5 | 23.6 | | 2879.3 | 5.5 |
| 188 | 0100 | 0111 | 2850.63 | 2887.5 | -0.0 | 0.1 | 2.7 | | 2895.2 | -2.6 |
| 189 | 0100 | 0110 | 2855.27 | 2906.9 | -0.4 | 0.3 | 19.4 | | 2911.0 | -4.1 |
| 190 | 0100 | 0101 | 2861.88 | 2922.9 | -0.3 | 0.3 | 16.0 | | 2926.9 | -4.0 |
| 191 | 0100 | 0100 | 2897.20 | 2946.7 | 0.3 | 1.9 | 21.8 | | 2942.8 | -3.9 |
| 192 | 0100 | 0011 | 2915.13 | 2951.5 | 0.4 | 0.5 | 4.8 | | 2956.7 | -2.2 |
| 196 | 0100 | 0010 | 2931.75 | 2971.3 | -0.1 | 0.4 | 21.8 | | 2974.5 | 0.8 |
| 197 | 0100 | 0001 | 2944.36 | 2987.8 | -0.6 | 0.4 | 12.5 | | 2990.4 | -2.6 |
| 198 | 0100 | 0000 | 2950.90 | 3003.5 | -0.0 | 0.3 | 15.6 | | 3006.3 | -2.8 |
| | | | | | | | | | | |
| 199 | 0011 | 1111 | 2975.63 | 3014.0 | 0.4 | 0.4 | 18.5 | | 3022.2 | -8.2 |
| 199.1 | 0011 | 1110 | 2991.27 | 3032.5 | 2.1 | 2.1 | 18.6 | | 3033.0 | -5.4 |
| 199.2 | 0011 | 1101 | 3005.88 | 3051.5 | 0.4 | 0.0 | 15.9 | | 3052.2 | -2.4 |
| 199.3 | 0011 | 1100 | 3012.50 | 3066.5 | -0.3 | -0.4 | 15.0 | | 3079.8 | 1.2 |
| 199.4 | 0011 | 1011 | 3032.13 | 3080.6 | 0.1 | 0.4 | 13.1 | | 3085.7 | -5.0 |
| 199.5 | 0011 | 1010 | 3053.75 | 3101.7 | 0.3 | 0.4 | 21.1 | | 3101.5 | 0.2 |
| 199.6 | 0011 | 1001 | 3069.38 | 3116.4 | 0.0 | 0.4 | 14.2 | | 3117.4 | -3.0 |
| 199.7 | 0011 | 1000 | 3085.00 | 3131.3 | 0.4 | 1.4 | 14.9 | | 3133.3 | -2.0 |
| 200 | 0011 | 0111 | 3100.63 | 3141.8 | -0.4 | -0.4 | 10.5 | | 3149.2 | -2.4 |
| 200.1 | 0011 | 0110 | 3115.27 | 3152.0 | 0.2 | 0.0 | 20.2 | | 3156.0 | -3.0 |
| 200.2 | 0011 | 0101 | 3131.88 | 3178.5 | 0.4 | 0.5 | 16.3 | | 3166.9 | -2.6 |
| 200.3 | 0011 | 0100 | 3145.50 | 3199.0 | 0.1 | 0.3 | 20.7 | | 3176.0 | -2.2 |
| 200.4 | 0011 | 0011 | 3153.13 | 3208.1 | 0.5 | 0.4 | 9.1 | | 3211.2 | -4.6 |
| 200.5 | 0011 | 0010 | 3173.75 | 3231.9 | -0.0 | 0.4 | 23.8 | | 3228.5 | -3.9 |
| 200.6 | 0011 | 0001 | 3195.36 | 3243.8 | 0.4 | 3.3 | 11.8 | | 3244.4 | -8.2 |
| 200.7 | 0011 | 0000 | 3210.90 | 3272.3 | 0.3 | 0.4 | 17.5 | | 3260.3 | 3.0 |
| | | | | | | | | | | |
| 209 | 0010 | 1111 | 3225.63 | 3268.9 | 0.4 | 6.0 | 11.6 | | 3276.2 | -2.3 |

HS-206 AUTOMATIC MASTER MIX UNIT TEST MODEL 111 S/N 3 PAGE 306

1901/11/30 12:39:23 QUALITY TEST PERFORMANCE @ AMBIENT TEMP.

TESTING INSTRUCTIONS: 1. SET UP THE TEST EQUIPMENT AS SHOWN IN THE INSTRUCTIONS. 2. SET THE TEST EQUIPMENT TO THE TEST POINTS LISTED IN THE TEST POINTS LIST.



NOV 30 '81

| THRESHOLD AND OUTPUT
MODES | THRESHOLD | TIDAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|-------------------------------|-----------|------------------------|---------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3287.6 | -0.4 | 0.4 | 3292.0 | -4.4 |
| 211 | 0010 1101 | 3256.88 | 3306.1 | -0.4 | -0.4 | 3307.9 | -1.8 |
| 212 | 0010 1100 | 3272.50 | 3324.1 | 0.3 | 0.3 | 3323.8 | 0.3 |
| 213 | 0010 1011 | 3288.13 | 3334.9 | -0.0 | 0.4 | 3339.7 | -4.8 |
| 214 | 0010 1010 | 3303.75 | 3352.3 | -0.4 | -0.4 | 3355.6 | 1.7 |
| 215 | 0010 1001 | 3319.38 | 3371.4 | -0.3 | -0.3 | 3371.4 | 0.0 |
| 216 | 0010 1000 | 3335.00 | 3390.0 | 0.1 | 0.0 | 3387.3 | 2.7 |
| 217 | 0010 0111 | 3350.63 | 3396.3 | 0.4 | 0.4 | 3403.2 | -6.9 |
| 218 | 0010 0110 | 3366.25 | 3417.3 | -0.1 | 0.5 | 3419.1 | -1.7 |
| 219 | 0010 0101 | 3381.88 | 3433.8 | -0.5 | 0.4 | 3434.9 | -1.1 |
| 220 | 0010 0100 | 3397.50 | 3449.5 | -0.0 | 0.2 | 3450.8 | 8.7 |
| 221 | 0010 0011 | 3413.13 | 3462.8 | 0.4 | 0.4 | 3466.7 | -3.8 |
| 222 | 0010 0010 | 3428.75 | 3486.8 | 0.4 | 0.4 | 3482.6 | 4.2 |
| 223 | 0010 0001 | 3444.38 | 3499.4 | -0.4 | -0.1 | 3498.4 | 0.9 |
| 224 | 0010 0000 | 3460.00 | 3520.7 | -0.4 | -0.3 | 3514.3 | 6.4 |
| 225 | 0001 1111 | 3475.63 | 3524.9 | -0.0 | -0.3 | 3530.2 | -5.3 |
| 226 | 0001 1110 | 3491.25 | 3542.8 | 0.3 | 0.4 | 3546.1 | -3.7 |
| 227 | 0001 1101 | 3506.88 | 3562.0 | -0.1 | 0.4 | 3561.9 | 0.0 |
| 228 | 0001 1100 | 3522.50 | 3577.3 | -0.4 | 0.4 | 3577.8 | -0.5 |
| 229 | 0001 1011 | 3538.13 | 3591.6 | -0.4 | -0.3 | 3593.7 | -2.0 |
| 230 | 0001 1010 | 3553.75 | 3612.2 | 0.3 | -0.0 | 3609.6 | 2.6 |
| 231 | 0001 1001 | 3569.38 | 3627.7 | 0.3 | 0.4 | 3625.4 | 2.3 |
| 232 | 0001 1000 | 3585.00 | 3641.9 | -2.6 | 0.2 | 3641.3 | 4.6 |
| 233 | 0001 0111 | 3600.63 | 3653.4 | -0.5 | -0.3 | 3657.2 | -3.8 |
| 234 | 0001 0110 | 3616.25 | 3674.0 | -0.1 | -0.4 | 3673.1 | 0.9 |
| 235 | 0001 0101 | 3631.88 | 3690.4 | 0.3 | 0.4 | 3688.9 | 1.4 |
| 236 | 0001 0100 | 3647.50 | 3712.6 | 0.1 | 0.4 | 3704.8 | 2.8 |

ORIGINAL PAGE IS
OF POOR QUALITY

100

116 J. C. C. de Boer, J. C. J. M. M. van den Broek, J. F. G. M. van den Broek

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|----|-------|---------|---------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1999 | 1 | 1 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 2 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 3 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 4 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 5 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 6 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 7 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 8 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 9 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 10 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 11 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 12 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 13 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 14 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 15 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 16 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 17 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 18 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 19 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 20 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 21 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 22 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 23 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 24 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 25 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 26 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 27 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 28 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 29 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 30 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 1999 | 1 | 31 | 12:00 | 39.42°N | 76.63°W | 26.9 | -0.4 | 0.88 | 1.2 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |

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HS-2 G. DYNAMIC BUFFER BOX UNIT TEST MODEL.. FLT. S/N 3 PAGE 340

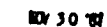
1981/11/30 12:46:30 DYNAMIC FULL PERFORMANCE @ AMBIENT TEMP.

TESTED BY: J. J. J. AND THRESHOLD TEST COND= 2. SENSOR=9

HAC
TEST
527

| THRESHOLD AND OUTPUT
NUMBER | THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------------------|-----------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 375.0 | -0.1 | 0.6 | 17.8 | 377.6 | -2.6 |
| 27 | 1110 0101 | 381.875 | 396.0 | -0.8 | -0.8 | 21.0 | 393.5 | 2.4 |
| 28 | 1110 0100 | 397.500 | 416.1 | -0.1 | -0.7 | 20.1 | 409.4 | 6.7 |
| 29 | 1110 0011 | 413.125 | 423.9 | 0.7 | 0.7 | 7.7 | 425.3 | -1.5 |
| 30 | 1110 0010 | 428.750 | 448.3 | 0.6 | 0.7 | 24.4 | 441.2 | 7.0 |
| 31 | 1110 0001 | 444.375 | 463.6 | -0.8 | 0.0 | 15.3 | 457.1 | 6.5 |
| 32 | 1110 0000 | 460.000 | 473.2 | -0.6 | -0.5 | 9.6 | 473.0 | 0.2 |
| 33 | 1101 1111 | 475.625 | 485.6 | -0.1 | -0.7 | 12.4 | 488.9 | -3.3 |
| 34 | 1101 1110 | 491.250 | 502.3 | 0.6 | 0.5 | 16.7 | 504.8 | -2.5 |
| 35 | 1101 1101 | 506.875 | 523.3 | -0.1 | 0.7 | 20.9 | 520.7 | 2.6 |
| 36 | 1101 1100 | 522.500 | 536.2 | -0.6 | -0.8 | 12.9 | 536.6 | -0.5 |
| 37 | 1101 1011 | 538.125 | 557.5 | -0.7 | -0.8 | 16.3 | 557.5 | -0.0 |
| 38 | 1101 1010 | 553.750 | 572.6 | 0.6 | 0.0 | 20.1 | 568.4 | 4.1 |
| 39 | 1101 1001 | 569.375 | 590.1 | 0.6 | 0.7 | 17.6 | 584.3 | 5.8 |
| 40 | 1101 1000 | 585.000 | 600.6 | 0.0 | 0.6 | 10.5 | 600.2 | 0.4 |
| 41 | 1101 0111 | 600.625 | 613.7 | -0.8 | 0.8 | 13.0 | 616.1 | -2.5 |
| 42 | 1101 0110 | 616.250 | 630.4 | 0.0 | 0.7 | 17.7 | 632.0 | -1.7 |
| 43 | 1101 0101 | 631.875 | 650.6 | 0.5 | 0.7 | 20.2 | 647.9 | 2.7 |
| 44 | 1101 0100 | 647.500 | 667.3 | 0.6 | 0.6 | 17.7 | 663.8 | 3.4 |
| 45 | 1101 0011 | 663.125 | 680.2 | -0.8 | 0.0 | 12.9 | 679.7 | 0.5 |
| 46 | 1101 0010 | 678.750 | 703.3 | -0.7 | -0.6 | 20.1 | 695.6 | 7.7 |
| 47 | 1101 0001 | 694.375 | 718.7 | -0.1 | -0.8 | 15.4 | 711.5 | 7.2 |
| 48 | 1101 0000 | 710.000 | 731.3 | 0.6 | 0.6 | 12.6 | 727.4 | 3.9 |
| 49 | 1100 1111 | 725.625 | 739.4 | -0.0 | 0.6 | 8.0 | 743.3 | -3.0 |
| 50 | 1100 1110 | 741.250 | 757.9 | -0.7 | -0.8 | 18.5 | 759.2 | -1.3 |
| 51 | 1100 1101 | 756.875 | 778.3 | -0.7 | -0.6 | 20.4 | 775.1 | 3.1 |

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REV 30 78

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ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 05-09-2001 BY SP-NSOR-9

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REV. 3.0 781

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| TEST SIGNAL NUMBER | A/D OUTPUT THRESHOLD | DIGITAL OUTPUT VALUE (LSB) | ANALOG INPUT VOLTAGE NOMINAL | INPUT VOLTAGE LEVEL | VOLTAGE RATIO - 1:1 | DIFFER | INCREASE FROM PREVIOUS THRESHOLD | BEST FIT STRAIGHT LINE POINT | DEVIATION |
|--------------------|----------------------|----------------------------|------------------------------|---------------------|---------------------|--------|----------------------------------|------------------------------|-----------|
| 158 | 0110 0010 | 2426.25 | 2482.4 | -0.8 | -0.8 | 26.3 | 2426.5 | 5.9 | |
| 157 | 0110 0001 | 2444.38 | 2496.7 | 0.8 | 0.1 | 13.8 | 2452.4 | 3.8 | |
| 156 | 0110 0000 | 2450.00 | 2506.1 | 0.6 | 0.7 | 9.9 | 2508.3 | -2.2 | |
| 16 | 0101 1111 | 2425.63 | 2517.3 | -1.8 | -0.1 | 11.2 | 2523.2 | -4.9 | |
| 155 | 0101 1110 | 2491.25 | 2531.32 | -0.7 | -0.7 | 13.8 | 2540.1 | -3.9 | |
| 164 | 0101 1101 | 2503.88 | 2555.4 | -0.8 | -0.6 | 24.3 | 2566.0 | -0.6 | |
| 154 | 0101 1100 | 2522.50 | 2569.7 | 0.6 | 0.8 | 14.2 | 2571.9 | -2.2 | |
| 163 | 0101 1011 | 2509.13 | 2582.4 | 0.8 | 0.8 | 12.8 | 2587.8 | -3.4 | |
| 162 | 0101 1010 | 2551.25 | 2605.4 | -0.7 | -0.1 | 22.9 | 2603.7 | 1.7 | |
| 161 | 0101 1001 | 2572.38 | 2623.7 | -0.9 | -1.0 | 18.3 | 2619.6 | 4.1 | |
| 160 | 0101 1000 | 2555.00 | 2631.0 | 1.0 | 0.7 | 7.3 | 2635.1 | -4.5 | |
| 169 | 0101 0111 | 2539.63 | 2642.7 | 0.7 | 0.8 | 11.7 | 2651.4 | -8.7 | |
| 170 | 0101 0110 | 2616.25 | 2659.9 | 0.6 | 0.7 | 17.2 | 2667.3 | -7.4 | |
| 171 | 0101 0101 | 2591.88 | 2683.3 | 0.7 | 1.0 | 23.4 | 2691.2 | 0.1 | |
| 172 | 0101 0100 | 2557.50 | 2699.3 | -0.6 | 0.7 | 16.1 | 2699.1 | 0.3 | |
| 173 | 0101 0011 | 2563.13 | 2709.2 | 0.9 | 0.9 | 9.7 | 2711.0 | -5.8 | |
| 174 | 0101 0010 | 2578.25 | 2734.1 | 0.7 | 1.8 | 14.0 | 2738.9 | 3.2 | |
| 175 | 0101 0001 | 2592.38 | 2749.3 | 0.0 | 0.9 | 15.3 | 2744.2 | 2.5 | |
| 176 | 0101 0000 | 2556.00 | 2773.9 | 1.3 | 0.8 | 14.5 | 2742.7 | 1.1 | |
| 177 | 0100 1111 | 2551.63 | 2769.3 | 0.8 | -0.6 | 5.5 | 2728.6 | -9.3 | |
| 178 | 0100 1110 | 2741.25 | 2783.7 | 0.7 | 0.7 | 14.3 | 2794.5 | -10.3 | |
| 179 | 0100 1101 | 2750.88 | 2807.7 | 0.6 | 0.6 | 24.0 | 2810.4 | -2.7 | |
| 180 | 0100 1100 | 2752.50 | 2822.1 | 0.9 | 0.0 | 14.4 | 2826.3 | -4.2 | |
| 181 | 0100 1011 | 2788.13 | 2836.2 | 0.9 | -0.9 | 14.0 | 2832.2 | -6.0 | |
| 182 | 0100 1010 | 2803.25 | 2858.6 | -0.1 | 0.4 | 22.4 | 2868.1 | 0.5 | |
| 183 | 0100 1001 | 2819.38 | 2875.1 | 1.1 | 1.1 | 15.5 | 2874.0 | 1.1 | |

FACE 346

1901 / 11 / 30 12:46:30 PENALTY FULL PERFORMANCE @ ADMIN NI TEL.

DATA=HAF-11 0/0 10000000 00 00000000 (FON)= 2. SENSURE=V

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HAC
TEST
527

HS-23A THERMATIC MATTER MIX UNIT TEST MODEL.. H11. S/N 3 PAGE 370
 1981/11 30 12:53:06 FINALITY FULL PERFORMANCE @ AMBIENT TEMP.
 11.12.11.55-11.55.11.55 THREE SECONDS TESTS (CLOCK) = 22.5 SECONDS = 10.5

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | TOTAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO 1:1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|--|------------------------|--|------------------------------------|---|
|--|------------------------|--|------------------------------------|---|

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -28.7 | 0.2 | 0.8 | | -21.3 | -7.4 |
| 2 | 1111 1110 | -8.750 | -8.3 | -3.9 | 0.0 | 20.4 | -5.4 | -2.9 |
| 3 | 1111 1101 | 6.875 | 10.2 | -0.7 | -0.7 | 18.5 | 10.5 | -0.2 |
| 4 | 1111 1100 | 22.500 | 21.4 | -0.0 | 0.7 | 11.2 | 26.4 | -4.9 |
| 5 | 1111 1011 | 38.125 | 38.1 | 0.7 | 0.8 | 16.7 | 42.2 | -4.1 |
| 6 | 1111 1010 | 53.750 | 61.5 | 0.5 | 0.6 | 23.3 | 58.1 | 3.4 |
| 7 | 1111 1001 | 69.375 | 76.9 | -0.9 | 0.0 | 15.4 | 74.0 | 2.9 |
| 8 | 1111 1000 | 85.000 | 88.0 | -0.6 | -0.6 | 11.1 | 89.9 | -1.9 |
| 9 | 1111 0111 | 100.625 | 99.6 | 0.7 | 0.0 | 11.5 | 105.8 | -6.2 |
| 10 | 1111 0110 | 116.250 | 118.8 | 0.6 | 0.7 | 19.2 | 121.7 | -2.9 |
| 11 | 1111 0101 | 131.875 | 137.7 | -0.1 | 0.9 | 18.9 | 137.6 | 0.1 |
| 12 | 1111 0100 | 147.500 | 154.8 | -0.7 | -0.6 | 17.0 | 153.5 | 1.1 |
| 13 | 1111 0011 | 163.125 | 167.1 | 0.8 | -0.7 | 12.3 | 169.3 | -0.2 |
| 14 | 1111 0010 | 178.750 | 192.3 | 0.5 | 0.0 | 25.2 | 185.2 | 7.1 |
| 15 | 1111 0001 | 194.375 | 203.7 | 0.7 | 0.8 | 11.4 | 201.1 | 2.6 |
| 16 | 1111 0000 | 210.000 | 212.9 | -0.7 | -0.0 | 9.2 | 217.0 | -4.1 |
| 17 | 1110 1111 | 225.625 | 227.7 | -0.7 | -0.7 | 14.7 | 232.9 | -5.2 |
| 18 | 1110 1110 | 241.250 | 244.5 | -0.1 | -0.7 | 16.9 | 248.8 | -4.2 |
| 19 | 1110 1101 | 256.875 | 265.0 | 0.6 | 0.8 | 20.5 | 264.7 | 0.4 |
| 20 | 1110 1100 | 272.500 | 279.5 | 0.6 | 0.6 | 14.5 | 280.5 | -1.0 |
| 21 | 1110 1011 | 288.125 | 294.4 | -0.8 | 0.1 | 14.9 | 296.4 | -2.0 |
| 22 | 1110 1010 | 303.750 | 318.0 | 0.7 | -0.7 | 23.6 | 312.3 | 5.7 |
| 23 | 1110 1001 | 319.375 | 331.5 | 0.9 | 0.0 | 13.5 | 328.2 | 3.3 |
| 24 | 1110 1000 | 335.000 | 348.8 | 0.6 | 0.7 | 17.2 | 344.1 | 4.7 |
| 25 | 1110 0111 | 350.625 | 355.0 | -0.0 | 0.8 | 6.2 | 360.0 | -5.0 |

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THE MATHEMATICAL ANALYSIS OF THE TEST REPORT IS THE PROPERTY OF THE COMPANY. PAGE 19

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THE COMPANY IS NOT RESPONSIBLE FOR THE RESULTS OF THE TESTS. THE RESULTS OF THE TESTS ARE THE PROPERTY OF THE COMPANY.

| POINT | COORDINATE | X (MM) | Y (MM) | Z (MM) | X (MM) | Y (MM) | Z (MM) | BEST FIT STRAIGHT LINE | |
|-------|------------|---------|---------|--------|--------|--------|---------|------------------------|-----------|
| | | | | | | | | POINT | DEVIATION |
| 1 | 0001 0001 | 1278.00 | 3728.00 | -1.6 | -1.6 | 12.9 | 3728.00 | 0.0 | |
| 2 | 0001 0002 | 1278.25 | 3728.00 | -1.6 | -1.6 | 12.9 | 3728.00 | 9.1 | |
| 3 | 0001 0003 | 1278.50 | 3728.00 | -0.9 | -0.9 | 12.9 | 3728.00 | 4.6 | |
| 4 | 0001 0004 | 1278.75 | 3728.00 | -0.9 | -0.9 | 12.9 | 3728.00 | 9.1 | |
| 5 | 0001 0005 | 1279.00 | 3728.00 | -1.0 | -1.0 | 12.9 | 3728.00 | -3.4 | |
| 6 | 0001 0006 | 1279.25 | 3728.00 | -0.7 | -0.7 | 12.9 | 3728.00 | 3.3 | |
| 7 | 0001 0007 | 1279.50 | 3728.00 | -0.7 | -0.7 | 12.9 | 3728.00 | 3.6 | |
| 8 | 0001 0008 | 1279.75 | 3728.00 | -0.7 | -0.7 | 12.9 | 3728.00 | 0.0 | |
| 9 | 0001 0009 | 1280.00 | 3728.00 | -0.5 | -0.5 | 12.9 | 3728.00 | 0.7 | |
| 10 | 0001 0010 | 1280.25 | 3728.00 | -0.5 | -0.5 | 12.9 | 3728.00 | 8.1 | |
| 11 | 0001 0011 | 1280.50 | 3728.00 | -0.3 | -0.3 | 12.9 | 3728.00 | 9.0 | |
| 12 | 0001 0012 | 1280.75 | 3728.00 | -0.4 | -0.4 | 12.9 | 3728.00 | 11.7 | |
| 13 | 0001 0013 | 1281.00 | 3728.00 | -0.9 | -0.9 | 12.9 | 3728.00 | -2.2 | |
| 14 | 0001 0014 | 1281.25 | 3728.00 | -1.3 | -1.3 | 12.9 | 3728.00 | 1.9 | |
| 15 | 0001 0015 | 1281.50 | 3728.00 | -0.1 | -0.1 | 12.9 | 3728.00 | 7.2 | |
| 16 | 0001 0016 | 1281.75 | 3728.00 | 0.1 | 0.1 | 12.9 | 3728.00 | 9.8 | |
| 17 | 0001 0017 | 1282.00 | 3728.00 | 0.3 | 0.3 | 12.9 | 3728.00 | 2.1 | |
| 18 | 0001 0018 | 1282.25 | 3728.00 | 0.9 | 0.9 | 12.9 | 3728.00 | 14.6 | |
| 19 | 0001 0019 | 1282.50 | 3728.00 | 1.0 | 1.0 | 12.9 | 3728.00 | 8.8 | |

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154145

FAST FIVE SURVEILLANCE LINE

1714 1737U

PC763 13-0161109

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE

| Year | Period | 1990-1991 | 1991-1992 | 1992-1993 | 1993-1994 | 1994-1995 | 1995-1996 | 1996-1997 | 1997-1998 | 1998-1999 | 1999-2000 |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 | 1990-1991 | 224.7 | 228.0 | -1.1 | 1.0 | 19.3 | -4.6 | -4.2 | | | |
| 2 | 1991-1992 | 227.0 | 230.5 | -0.8 | -0.8 | 11.3 | 11.3 | 1.2 | | | |
| 3 | 1992-1993 | 229.2 | 232.7 | -1.6 | -1.6 | 21.7 | 21.7 | 3.0 | | | |
| 4 | 1993-1994 | 231.5 | 235.0 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 5 | 1994-1995 | 233.8 | 237.3 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 6 | 1995-1996 | 236.1 | 239.6 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 7 | 1996-1997 | 238.4 | 241.9 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 8 | 1997-1998 | 240.7 | 244.2 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 9 | 1998-1999 | 243.0 | 246.5 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 10 | 1999-2000 | 245.3 | 248.8 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 11 | 2000-2001 | 247.6 | 251.1 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 12 | 2001-2002 | 249.9 | 253.4 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 13 | 2002-2003 | 252.2 | 255.7 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 14 | 2003-2004 | 254.5 | 258.0 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 15 | 2004-2005 | 256.8 | 260.3 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 16 | 2005-2006 | 259.1 | 262.6 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 17 | 2006-2007 | 261.4 | 264.9 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 18 | 2007-2008 | 263.7 | 267.2 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 19 | 2008-2009 | 266.0 | 269.5 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 20 | 2009-2010 | 268.3 | 271.8 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 21 | 2010-2011 | 270.6 | 274.1 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 22 | 2011-2012 | 272.9 | 276.4 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 23 | 2012-2013 | 275.2 | 278.7 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 24 | 2013-2014 | 277.5 | 281.0 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 25 | 2014-2015 | 279.8 | 283.3 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 26 | 2015-2016 | 282.1 | 285.6 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 27 | 2016-2017 | 284.4 | 287.9 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 28 | 2017-2018 | 286.7 | 290.2 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 29 | 2018-2019 | 289.0 | 292.5 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 30 | 2019-2020 | 291.3 | 294.8 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 31 | 2020-2021 | 293.6 | 297.1 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 32 | 2021-2022 | 295.9 | 299.4 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 33 | 2022-2023 | 298.2 | 301.7 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 34 | 2023-2024 | 300.5 | 304.0 | -1.1 | -1.1 | 11.1 | 11.1 | 3.0 | | | |
| 35 | 2024-2025 | 302.8 | 306. | | | | | | | | |

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| REFRESHED | A/D OUTPUT | DIGITAL | ANALOG INPUT VOLTAGE | (MID) | DIFFERENCE | DIFFERENCE | FIRST FIT STRAIGHT LINE | |
|-----------|------------|---------|----------------------|-------|------------|------------|-------------------------|-----------|
| NUMBER | THRESHOLD | (ADU) | NOMINAL | LOWER | UPPER | THRESHOLD | POINT | DEVIATION |
| 26 | 0110 0110 | 366.250 | 378.8 | -4.2 | -4.3 | 22.2 | 376.6 | 2.1 |
| 27 | 0110 0101 | 361.875 | 394.0 | 1.9 | 0.1 | 16.3 | 392.5 | 1.5 |
| 28 | 0110 0100 | 357.500 | 415.3 | 1.2 | 1.3 | 21.2 | 408.4 | 6.9 |
| 29 | 0110 0011 | 413.125 | 422.2 | -0.8 | 0.9 | 8.9 | 424.3 | -2.1 |
| 30 | 0110 0010 | 408.750 | 448.8 | -1.0 | -0.9 | 26.6 | 440.2 | 8.6 |
| 31 | 0110 0001 | 444.375 | 460.9 | -0.1 | -1.2 | 12.1 | 456.1 | 4.8 |
| 32 | 0110 0000 | 460.000 | 473.6 | 0.2 | 0.9 | 12.2 | 471.9 | 1.6 |
| | | | | | | | | |
| 33 | 1101 1111 | 425.625 | 483.3 | 0.9 | 0.9 | 9.2 | 487.8 | -4.6 |
| 34 | 1101 1110 | 421.250 | 501.4 | -2.5 | -0.1 | 18.1 | 503.2 | -2.3 |
| 35 | 1101 1101 | 506.875 | 523.6 | -2.4 | 2.2 | 22.2 | 519.6 | 4.0 |
| 36 | 1101 1100 | 522.500 | 536.6 | -0.1 | 1.2 | 13.0 | 535.5 | 1.5 |
| 37 | 1101 1011 | 538.125 | 549.9 | 0.9 | 1.0 | 13.3 | 551.4 | 1.5 |
| 38 | 1101 1010 | 523.750 | 571.2 | -0.1 | 1.4 | 21.8 | 562.2 | 4.5 |
| 39 | 1101 1001 | 559.375 | 598.5 | -3.1 | -5.0 | 18.8 | 583.1 | 7.4 |
| 40 | 1101 1000 | 584.000 | 592.6 | -0.4 | -0.2 | 2.0 | 599.0 | -1.5 |
| 41 | 1101 0111 | 560.625 | 611.0 | 0.9 | 0.0 | 13.4 | 614.9 | 3.9 |
| 42 | 1101 0110 | 616.250 | 628.9 | 3.5 | 3.5 | 12.9 | 630.8 | 1.9 |
| 43 | 1101 0101 | 631.875 | 649.5 | 0.1 | 5.6 | 20.2 | 646.7 | 2.5 |
| 44 | 1101 0100 | 617.500 | 653.5 | -1.5 | -3.5 | 19.4 | 662.5 | 6.0 |
| 45 | 1101 0011 | 653.125 | 678.7 | -0.4 | -0.9 | 10.2 | 683.4 | 0.3 |
| 46 | 1101 0010 | 628.750 | 701.2 | 1.3 | 1.2 | 22.9 | 694.3 | 2.3 |
| 47 | 1101 0001 | 694.375 | 716.2 | 1.2 | 1.8 | 15.1 | 710.2 | 6.6 |
| 48 | 1101 0000 | 710.000 | 731.2 | -3.2 | 0.0 | 14.5 | 726.1 | 5.2 |
| | | | | | | | | |
| 49 | 1100 1111 | 725.625 | 739.0 | -1.0 | -1.3 | 2.3 | 742.0 | -1.9 |
| 50 | 1100 1110 | 741.250 | 738.0 | -0.1 | 6.2 | 19.0 | 752.8 | 0.1 |
| 51 | 1100 1101 | 756.875 | 775.8 | 5.0 | 1.9 | 12.8 | 773.2 | 2.0 |

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103-1144 BEMATIC MASTER MUX UNIT TEST MODEL 1111 S/N 3 PAGE 364

1981/11/30 12:59:42 IDUITY FULL PERFORMANCE @ AMBIENT TEMP.

103-1144 1111-1111 1111-1111 1111-1111 1111-1111 1111-1111 1111-1111 1111-1111 1111-1111 1111-1111

HAC
11 ST
527

NOV 30 '81

| TEST NO. AND OUTPUT | | HAC
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM TEST
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-----------|----------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| TEST NO. | THRESHOLD | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 72 | 1011 0001 | 1194.38 | 1272.4 | 1.2 | 1.1 | 10.8 | 1218.5 | 3.9 |
| 73 | 1011 0000 | 1210.00 | 1232.3 | 0.0 | 2.3 | 9.9 | 1234.4 | -2.0 |
| 81 | 1010 1111 | 1225.63 | 1246.3 | -1.0 | -1.0 | 13.9 | 1250.2 | -3.9 |
| 82 | 1010 1110 | 1241.25 | 1263.1 | -2.4 | -2.5 | 16.8 | 1266.1 | -3.0 |
| 83 | 1010 1101 | 1256.88 | 1283.2 | 2.6 | -0.1 | 20.1 | 1282.0 | 1.2 |
| 84 | 1010 1100 | 1272.50 | 1298.4 | 1.1 | 1.0 | 21.2 | 1297.9 | 0.5 |
| 85 | 1010 1011 | 1288.13 | 1312.2 | -1.0 | -0.0 | 24.8 | 1313.8 | -1.0 |
| 86 | 1010 1010 | 1303.75 | 1334.9 | -1.0 | -1.2 | 27.8 | 1339.7 | 1.3 |
| 87 | 1010 1001 | 1319.38 | 1352.0 | -0.1 | 3.7 | 32.1 | 1345.5 | 0.5 |
| 88 | 1010 1000 | 1335.00 | 1369.3 | 0.2 | 0.3 | 32.2 | 1361.4 | 2.8 |
| 89 | 1010 0111 | 1350.63 | 1371.6 | 1.0 | 0.9 | 32.5 | 1377.3 | 1.5 |
| 90 | 1010 0110 | 1366.25 | 1393.1 | -3.5 | -0.1 | 32.3 | 1393.2 | -0.1 |
| 91 | 1010 0101 | 1381.88 | 1412.2 | -1.0 | -2.8 | 32.8 | 1409.1 | 1.8 |
| 92 | 1010 0100 | 1397.50 | 1439.7 | 1.3 | 0.1 | 36.9 | 1435.0 | 4.8 |
| 93 | 1010 0011 | 1413.13 | 1437.5 | 1.1 | 1.0 | 32.8 | 1440.8 | -3.3 |
| 94 | 1010 0010 | 1428.75 | 1462.2 | 0.0 | 1.5 | 36.1 | 1456.7 | 5.9 |
| 95 | 1010 0001 | 1444.38 | 1476.0 | -1.3 | -1.3 | 36.3 | 1472.6 | 3.4 |
| 96 | 1010 0000 | 1460.00 | 1493.0 | 0.3 | 0.2 | 37.0 | 1488.5 | 4.5 |
| 97 | 1001 1111 | 1475.63 | 1498.6 | 0.2 | -0.2 | 37.4 | 1504.4 | -1.8 |
| 98 | 1001 1110 | 1491.25 | 1512.8 | 2.1 | 2.1 | 34.2 | 1520.3 | -7.5 |
| 99 | 1001 1101 | 1506.88 | 1538.5 | -2.5 | -0.0 | 36.7 | 1538.1 | 2.3 |
| 100 | 1001 1100 | 1522.50 | 1549.0 | 1.0 | -1.2 | 38.5 | 1552.0 | -3.0 |
| 101 | 1001 1011 | 1538.13 | 1561.2 | 0.0 | 1.1 | 36.2 | 1567.9 | -2.7 |
| 102 | 1001 1010 | 1553.75 | 1575.5 | 1.5 | 1.6 | 36.1 | 1583.8 | 1.2 |
| 103 | 1001 1001 | 1569.38 | 1601.4 | 3.4 | 3.4 | 37.8 | 1599.7 | 1.7 |
| 104 | 1001 1000 | 1585.00 | 1610.6 | -0.8 | -0.0 | 39.2 | 1615.6 | -5.0 |

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REFERENCE: THE NATIONAL BUREAU OF STANDARDS TEST METHOD FOR THE DETERMINATION OF THE
 1991-1992 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92
 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92 12/1/92

| ITEM NO. | AZD OUTPUT | THRESHOLD | ANALOG | INTEGRATED | VOLTAGE | GAIN | INCREASE | BEST FIT STRAIGHT LINE | |
|----------|------------|-----------|---------|------------|---------|------|----------|------------------------|-----------|
| | | | | | | | | POINT | DEVIATION |
| 16 | 1001 | 0111 | 1625.63 | 1625.9 | -0.9 | 1.1 | 17.3 | 1621.4 | -5.6 |
| 17 | 1001 | 0110 | 1616.77 | 1641.9 | 2.8 | -0.1 | 16.0 | 1647.3 | -5.4 |
| 18 | 1001 | 0101 | 1631.88 | 1662.8 | 3.9 | 3.0 | 20.9 | 1653.2 | 0.4 |
| 19 | 1001 | 0100 | 1642.50 | 1679.1 | 0.8 | 1.4 | 16.3 | 1679.1 | 0.0 |
| 20 | 1001 | 0011 | 1663.13 | 1691.6 | -1.1 | -1.1 | 12.5 | 1695.0 | -3.3 |
| 21 | 1001 | 0010 | 1673.25 | 1716.3 | -1.2 | -6.9 | 24.5 | 1710.9 | 5.4 |
| 22 | 1001 | 0001 | 1693.38 | 1727.8 | 3.5 | -1.6 | 11.5 | 1723.7 | 1.1 |
| 23 | 1001 | 0000 | 1703.50 | 1742.5 | 4.9 | 4.3 | 14.3 | 1732.5 | -0.5 |
| 24 | 1000 | 1111 | 1725.63 | 1751.7 | -9.9 | 6.1 | 9.5 | 1753.5 | -6.8 |
| 25 | 1000 | 1110 | 1735.75 | 1767.8 | -2.5 | -2.4 | 15.1 | 1769.7 | -6.6 |
| 26 | 1000 | 1101 | 1745.88 | 1790.5 | -6.0 | 5.3 | 22.7 | 1798.3 | 0.2 |
| 27 | 1000 | 1100 | 1752.50 | 1803.1 | 1.6 | 1.6 | 12.6 | 1806.2 | 3.1 |
| 28 | 1000 | 1011 | 1763.13 | 1816.5 | 1.6 | 3.9 | 13.4 | 1822.0 | -5.5 |
| 29 | 1000 | 1010 | 1773.25 | 1839.6 | -1.1 | 2.1 | 23.3 | 1837.9 | 1.9 |
| 30 | 1000 | 1001 | 1783.38 | 1850.2 | -4.6 | -4.6 | 18.4 | 1853.8 | 4.4 |
| 31 | 1000 | 1000 | 1793.50 | 1871.3 | 0.9 | 1.0 | 13.1 | 1859.7 | 1.6 |
| 32 | 1000 | 0111 | 1803.63 | 1877.0 | 1.0 | 1.0 | 1.0 | 1881.6 | -8.5 |
| 33 | 1000 | 0110 | 1813.75 | 1894.3 | -1.6 | 3.1 | 12.2 | 1901.5 | -7.2 |
| 34 | 1000 | 0101 | 1823.88 | 1918.0 | -1.1 | 1.1 | 21.7 | 1917.3 | 0.6 |
| 35 | 1000 | 0100 | 1834.00 | 1936.2 | -2.5 | -5.2 | 18.1 | 1933.2 | 3.0 |
| 36 | 1000 | 0011 | 1913.13 | 1942.8 | 0.9 | -0.6 | 6.5 | 1949.1 | -6.3 |
| 37 | 1000 | 0010 | 1923.25 | 1967.3 | 1.4 | 1.3 | 24.5 | 1965.0 | 2.3 |
| 38 | 1000 | 0001 | 1943.38 | 1983.6 | -3.1 | -0.3 | 16.3 | 1980.9 | 2.8 |
| 39 | 1000 | 0000 | 1953.50 | 1994.3 | -0.3 | 0.3 | 10.7 | 1994.3 | 2.4 |
| 40 | 0111 | 1111 | 1975.63 | 2007.1 | 0.1 | 1.6 | 12.8 | 2012.6 | -15.5 |
| 41 | 0111 | 1110 | 1985.75 | 2022.4 | 2.1 | 2.1 | 15.3 | 2028.5 | -6.1 |

THE MATHEMATICAL MODEL UNIT TEST (MODEL 1.1) FILE, S. N. 1 PAGE 366

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1001
927

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| TEST RESULTS AND COMMENTS | | TEST
VALUE
(NOV) | ANALOG INPUT CHANNEL
NOMINAL | ANALOG INPUT CHANNEL
TOLERANCE | ANALOG INPUT CHANNEL
TOLERANCE | TEST RESULT
TOLERANCE | BEST FIT STRAIGHT LINE
POINT | DEVIATION |
|---------------------------|-----------|------------------------|---------------------------------|-----------------------------------|-----------------------------------|--------------------------|---------------------------------|-----------|
| 137 | 0111 1107 | 2006.381 | 2047.4 | 0.1 | 0.2 | 20.0 | 2044.4 | 3.0 |
| 137 | 0111 1100 | 2007.750 | 2060.2 | -0.5 | 0.0 | 12.7 | 2060.3 | 0.1 |
| 137 | 0111 1011 | 2008.13 | 2073.0 | -1.1 | -1.0 | 12.8 | 2076.2 | -3.1 |
| 137 | 0111 1010 | 2007.771 | 2096.1 | 0.9 | 0.2 | 23.1 | 2092.1 | 4.0 |
| 137 | 0111 1001 | 2009.38 | 2109.1 | 1.1 | 1.1 | 13.0 | 2107.9 | 1.1 |
| 137 | 0111 1019 | 2005.00 | 2122.1 | -3.5 | 2.8 | 13.1 | 2123.8 | -1.7 |
| 137 | 0111 0111 | 2100.63 | 2133.9 | -1.1 | -1.1 | 11.8 | 2139.7 | -5.8 |
| 137 | 0111 0110 | 2116.25 | 2144.8 | -3.2 | 0.8 | 20.9 | 2155.6 | -0.8 |
| 137 | 0111 0101 | 2131.38 | 2174.4 | 0.7 | 0.0 | 19.6 | 2171.5 | 3.0 |
| 140 | 0111 0100 | 2147.50 | 2189.6 | 0.2 | 0.8 | 15.2 | 2187.4 | 2.2 |
| 140 | 0111 0011 | 2163.13 | 2199.8 | -1.1 | 0.1 | 10.2 | 2203.2 | 3.5 |
| 140 | 0111 0010 | 2173.77 | 2222.4 | -2.5 | 2.1 | 22.6 | 2219.1 | 8.3 |
| 140 | 0111 0001 | 2194.38 | 2236.8 | -0.1 | -1.2 | 2.4 | 2235.0 | 1.8 |
| 140 | 0111 0000 | 2210.00 | 2243.7 | 2.2 | 2.0 | 6.8 | 2250.9 | -2.2 |
| 140 | 0110 1111 | 2251.63 | 2259.0 | 6.9 | 0.8 | 1.4 | 2266.8 | -7.7 |
| 140 | 0110 1110 | 2251.25 | 2272.9 | -2.5 | 0.0 | 18.8 | 2282.7 | -4.8 |
| 140 | 0110 1101 | 2256.38 | 2300.0 | 0.0 | 0.0 | 12.1 | 2298.5 | 1.4 |
| 140 | 0110 1100 | 2272.50 | 2316.0 | 0.9 | 0.1 | 16.0 | 2314.4 | 1.5 |
| 140 | 0110 1011 | 2288.13 | 2324.6 | 1.2 | 1.2 | 16.6 | 2330.3 | -1.7 |
| 140 | 0110 1010 | 2303.75 | 2349.8 | -0.0 | 1.1 | 25.2 | 2346.2 | 3.6 |
| 140 | 0110 1001 | 2319.38 | 2365.8 | 1.3 | -1.2 | 13.0 | 2362.1 | 0.8 |
| 140 | 0110 1000 | 2335.00 | 2379.4 | -0.1 | -0.3 | 16.6 | 2378.0 | 1.5 |
| 140 | 0110 0111 | 2350.63 | 2385.4 | 1.1 | 0.0 | 6.0 | 2393.8 | 8.4 |
| 140 | 0110 0110 | 2355.25 | 2404.3 | 1.2 | 1.2 | 16.9 | 2409.7 | 5.4 |
| 140 | 0110 0101 | 2361.38 | 2427.7 | 5.7 | -0.1 | 21.4 | 2425.6 | 2.1 |
| 140 | 0110 0100 | 2377.50 | 2447.0 | -0.7 | 0.6 | 19.1 | 2441.5 | 5.5 |
| 140 | 0110 0011 | 2413.13 | 2452.0 | 0.0 | -0.9 | 4.9 | 2457.4 | -5.4 |

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THE 300 THERMOCHEMICAL MOTOR UNIT TEST MODEL 1111-5213 PAGE 362

1981 11 30 12:52:42 QUALITY TEST PERFORMANCE @ 60000 RPM

24731.25 24731.25 24731.25 24731.25 24731.25 24731.25 24731.25 24731.25 24731.25 24731.25

11/30/81
15.7

| THROTTLE POS | G/D POSITION | TIME | ANALOG INPUT VOLTAGE (V) | | THROTTLE FROM PREV | TEST SET STRAIGHT LINE | |
|--------------|--------------|----------|--------------------------|------|--------------------|------------------------|-----------|
| | | | POSITION | LOW | | POINT | DEVIATION |
| 15.7 | 0110 0000 | 24731.25 | 24731.25 | 1.6 | 1.7 | 24731.25 | 5.4 |
| 15.7 | 0110 0001 | 24731.25 | 24731.25 | 1.1 | 1.2 | 24731.25 | -1.0 |
| 15.7 | 0110 0000 | 24731.25 | 24731.25 | -0.6 | -0.1 | 24731.25 | -0.6 |
| 16.7 | 0101 1111 | 24731.25 | 24731.25 | -1.0 | -1.1 | 24731.25 | -7.8 |
| 16.7 | 0101 1110 | 24731.25 | 24731.25 | 2.1 | 2.0 | 24731.25 | -9.1 |
| 16.7 | 0101 1101 | 24731.25 | 24731.25 | -0.5 | -0.5 | 24731.25 | 0.5 |
| 16.7 | 0101 1000 | 24731.25 | 24731.25 | -0.1 | -0.8 | 24731.25 | -2.6 |
| 16.7 | 0101 0011 | 24731.25 | 24731.25 | 1.2 | 1.1 | 24731.25 | 5.4 |
| 16.7 | 0101 0000 | 24731.25 | 24731.25 | -1.2 | -1.4 | 24731.25 | 2.0 |
| 16.7 | 0101 1001 | 24731.25 | 24731.25 | 1.1 | 0.1 | 24731.25 | 1.1 |
| 16.7 | 0101 1000 | 24731.25 | 24731.25 | 0.6 | 0.8 | 24731.25 | 2.1 |
| 16.7 | 0101 0111 | 24731.25 | 24731.25 | -1.0 | -1.0 | 24731.25 | -8.2 |
| 16.7 | 0101 0110 | 24731.25 | 24731.25 | 2.3 | 2.3 | 24731.25 | 3.3 |
| 16.7 | 0101 0101 | 24731.25 | 24731.25 | 0.0 | -0.7 | 24731.25 | 0.8 |
| 16.7 | 0101 0100 | 24731.25 | 24731.25 | 0.6 | 0.7 | 24731.25 | 0.8 |
| 16.7 | 0101 0011 | 24731.25 | 24731.25 | 1.1 | 1.1 | 24731.25 | -7.0 |
| 16.7 | 0101 0010 | 24731.25 | 24731.25 | -1.2 | 0.1 | 24731.25 | 5.4 |
| 16.7 | 0101 0001 | 24731.25 | 24731.25 | -1.2 | 1.2 | 24731.25 | 0.5 |
| 16.7 | 0101 0000 | 24731.25 | 24731.25 | 2.3 | 0.5 | 24731.25 | 0.6 |
| 17.7 | 0100 1111 | 24731.25 | 24731.25 | 0.8 | 0.7 | 24731.25 | 9.9 |
| 17.7 | 0100 1110 | 24731.25 | 24731.25 | 0.9 | 1.2 | 24731.25 | 0.3 |
| 17.7 | 0100 1101 | 24731.25 | 24731.25 | 0.4 | 0.3 | 24731.25 | -1.4 |
| 17.7 | 0100 1100 | 24731.25 | 24731.25 | -1.8 | -0.7 | 24731.25 | 0.5 |
| 17.7 | 0100 1011 | 24731.25 | 24731.25 | 1.1 | 1.0 | 24731.25 | -7.9 |
| 17.7 | 0100 1010 | 24731.25 | 24731.25 | 1.0 | 1.0 | 24731.25 | 0.7 |
| 17.7 | 0100 1001 | 24731.25 | 24731.25 | -2.0 | 0.6 | 24731.25 | 3.2 |

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105-216 AUTOMATIC BARFETTER MIX UNIT TEST MODEL 11, C.T. S/N 1 PAGE 368

1981/11/20 12:19:47 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.

ANALOG INPUT VOLTAGE (MV) INCREASE FROM PREV. THRESHOLD



| THRESHOLD AND OUTPUT | | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | INCREASE
FROM PREV.
THRESHOLD | BEST FIT STRAIGHT LINE | | POINT
DEVIATION |
|----------------------|-----------|------------------------|---------------------------|-------|-------------------------------------|------------------------|--------|--------------------|
| NUMBER | THRESHOLD | | NOMINAL | LOWER | | | | |
| 189 | 0100 1000 | 2885.00 | 2888.7 | -0.4 | -0.4 | 15.2 | 2884.2 | 2.1 |
| 189 | 0100 0111 | 2890.63 | 2892.6 | -0.0 | -1.1 | 3.9 | 2902.1 | -9.5 |
| 189 | 0100 0110 | 2895.25 | 2909.8 | 3.6 | 3.6 | 17.2 | 2918.0 | -8.7 |
| 189 | 0100 0101 | 2898.88 | 2932.4 | 3.5 | 0.8 | 27.5 | 2933.9 | -1.5 |
| 189 | 0100 0100 | 2897.50 | 2953.9 | 0.7 | -0.7 | 21.6 | 2949.8 | 4.7 |
| 189 | 0100 0011 | 2913.13 | 2958.5 | -1.2 | -1.2 | 4.5 | 2965.7 | -7.2 |
| 190 | 0100 0010 | 2928.75 | 2984.4 | 1.7 | 0.0 | 25.9 | 2981.5 | 7.8 |
| 191 | 0100 0001 | 2944.38 | 2994.5 | 1.2 | 1.2 | 10.1 | 2997.4 | -3.0 |
| 192 | 0100 0000 | 2960.00 | 3007.5 | -0.1 | 1.2 | 13.1 | 3013.3 | -5.8 |
| | | | | | | | | |
| 193 | 0011 1111 | 2975.63 | 3021.2 | -0.9 | -0.9 | 13.6 | 3029.2 | -8.0 |
| 194 | 0011 1110 | 2991.25 | 3042.1 | 0.2 | 0.3 | 20.9 | 3045.1 | -3.0 |
| 195 | 0011 1101 | 3006.88 | 3063.4 | -0.6 | 0.7 | 19.3 | 3061.0 | 0.5 |
| 196 | 0011 1100 | 3022.50 | 3073.1 | 0.6 | 0.3 | 11.6 | 3076.8 | -3.8 |
| 197 | 0011 1011 | 3038.13 | 3087.2 | 1.1 | 0.1 | 14.1 | 3092.7 | -5.5 |
| 198 | 0011 1010 | 3053.75 | 3110.9 | -2.3 | -2.3 | 23.7 | 3108.6 | 2.3 |
| 199 | 0011 1001 | 3069.38 | 3129.4 | 0.0 | -0.6 | 18.5 | 3124.5 | 4.9 |
| 200 | 0011 1000 | 3085.00 | 3139.2 | 3.5 | 3.6 | 6.3 | 3140.4 | -4.7 |
| 201 | 0011 0111 | 3100.63 | 3147.5 | 0.9 | 0.9 | 11.8 | 3153.3 | -3.7 |
| 202 | 0011 0110 | 3116.25 | 3168.3 | -2.9 | -2.8 | 20.8 | 3172.1 | -3.8 |
| 203 | 0011 0101 | 3131.88 | 3189.4 | -0.2 | -0.0 | 21.1 | 3188.0 | 1.4 |
| 204 | 0011 0100 | 3147.50 | 3203.7 | 0.6 | -0.0 | 14.2 | 3203.9 | -0.3 |
| 205 | 0011 0011 | 3163.13 | 3217.5 | 1.1 | 1.1 | 9.8 | 3219.8 | -6.3 |
| 206 | 0011 0010 | 3178.75 | 3240.2 | -0.1 | 2.0 | 26.7 | 3245.7 | 4.5 |
| 207 | 0011 0001 | 3194.38 | 3252.1 | -1.4 | -1.3 | 11.9 | 3251.6 | 0.5 |
| 208 | 0011 0000 | 3210.00 | 3267.8 | -6.5 | -6.6 | 15.7 | 3267.4 | 0.4 |
| | | | | | | | | |
| 209 | 0010 1111 | 3225.63 | 3275.0 | 0.8 | 0.6 | 7.2 | 3283.3 | -8.3 |

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| THRESHOLD AND OFFSET NUMBER | THRESHOLD | ANALOG OFFSET (V) | ANALOG INPUT LEVELS NOMINAL | OUTPUT LEVELS RATIO LOWER | OUTPUT LEVELS RATIO UPPER | ANALOG INPUT THRESHOLD | TEST POINT | STRUCTURE LOCATION | |
|-----------------------------|-----------|-------------------|-----------------------------|---------------------------|---------------------------|------------------------|------------|--------------------|------|
| 210 | 0010 | 1110 | 3241.25 | 3291.0 | 1.7 | 1.4 | 16.0 | 3299.2 | -0.2 |
| 211 | 0010 | 1101 | 3256.38 | 3315.4 | 0.5 | 0.2 | 24.4 | 3315.1 | 0.3 |
| 212 | 0010 | 1100 | 3272.50 | 3332.2 | -1.0 | 1.0 | 16.8 | 3331.0 | 1.2 |
| 213 | 0010 | 1011 | 3288.13 | 3342.0 | 0.0 | -1.1 | 9.7 | 3346.2 | -4.9 |
| 214 | 0010 | 1010 | 3301.25 | 3344.7 | 1.2 | 1.6 | 2.7 | 3342.2 | 2.0 |
| 215 | 0010 | 1001 | 3319.38 | 3383.5 | 0.9 | 0.8 | 18.8 | 3373.6 | 4.9 |
| 216 | 0010 | 1000 | 3330.00 | 3395.8 | 0.2 | 0.4 | 12.1 | 3394.5 | 1.3 |
| 217 | 0010 | 0111 | 3358.63 | 3403.4 | -0.9 | 1.2 | 7.7 | 3410.4 | -2.0 |
| 218 | 0010 | 0110 | 3374.25 | 3420.1 | 3.0 | 3.1 | 11.2 | 3414.3 | -1.5 |
| 219 | 0010 | 0101 | 3391.88 | 3444.7 | 0.1 | 0.1 | 23.4 | 3442.2 | 2.0 |
| 220 | 0010 | 0100 | 3407.50 | 3463.3 | -0.1 | 0.6 | 19.2 | 3465.0 | 1.3 |
| 221 | 0010 | 0011 | 3424.13 | 3489.9 | 1.5 | 1.5 | 6.5 | 3473.9 | -4.1 |
| 222 | 0010 | 0010 | 3441.25 | 3497.9 | 2.0 | -1.9 | 26.0 | 3492.8 | 3.1 |
| 223 | 0010 | 0001 | 3444.38 | 3506.1 | 1.2 | 1.2 | 11.2 | 3505.2 | 0.4 |
| 224 | 0010 | 0000 | 3460.00 | 3526.1 | 0.3 | 0.2 | 20.0 | 3521.6 | 1.5 |
| | | | | | | | | | |
| 225 | 0001 | 1111 | 3471.63 | 3531.7 | 0.9 | 0.1 | 11.2 | 3522.5 | -1.2 |
| 226 | 0001 | 1110 | 3471.25 | 3542.8 | 2.0 | 0.1 | 12.0 | 3534.3 | -1.6 |
| 227 | 0001 | 1101 | 3481.38 | 3571.2 | -0.1 | 0.5 | 23.5 | 3562.2 | 2.0 |
| 228 | 0001 | 1100 | 3492.50 | 3584.4 | 0.5 | 0.2 | 11.2 | 3575.1 | -0.2 |
| 229 | 0001 | 1011 | 3502.13 | 3592.3 | 1.0 | 1.1 | 12.9 | 3581.0 | -3.2 |
| 230 | 0001 | 1010 | 3511.25 | 3598.5 | -1.2 | 1.5 | 23.2 | 3595.9 | 3.2 |
| 231 | 0001 | 1001 | 3522.38 | 3540.4 | 0.1 | 0.6 | 19.9 | 3532.8 | 2.2 |
| 232 | 0001 | 1000 | 3533.00 | 3544.1 | 0.9 | 0.1 | 11.2 | 3548.6 | 4.1 |
| 233 | 0001 | 0111 | 3538.63 | 3559.1 | 1.0 | 1.3 | 11.0 | 3564.5 | 1.4 |
| 234 | 0001 | 0110 | 3548.25 | 3578.3 | 1.6 | 1.2 | 19.1 | 3580.4 | 2.1 |
| 235 | 0001 | 0101 | 3558.38 | 3590.9 | 0.2 | 0.1 | 22.6 | 3596.3 | 4.6 |
| 236 | 0001 | 0100 | 3568.50 | 3612.0 | -0.8 | -0.2 | 16.2 | 3612.2 | 4.3 |

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

HAC
TST
S 7

1983

| PROPOSED
PUMP | AZD OUTPUT
THERMID | THERM
VALUE
(BTU) | ANALOG INPUT UNIT (BTU) | | DECREASE
FROM PREV
THERMID | BEST FIT STRAIGHT LINE | | |
|------------------|-----------------------|-------------------------|-------------------------|----------------------------------|----------------------------------|------------------------|-----------|------|
| | | | NOMINAL | LEVELS RATIO-
1 : 1
DIFFER | | POINT | DEVIATION | |
| 255 | 0701 0011 | 3553.13 | 3725.8 | 0.9 | 0.7 | 8.8 | 3720.1 | -2.3 |
| 253 | 0601 0010 | 3623.25 | 3751.8 | 1.9 | 2.0 | 27.0 | 3743.9 | 7.2 |
| 252 | 0001 0001 | 3694.78 | 3769.3 | 7.0 | 0.1 | 17.4 | 3759.8 | 9.4 |
| 250 | 0001 0000 | 3710.00 | 3785.1 | -1.3 | -1.3 | 15.2 | 3775.7 | 9.4 |
| 241 | 0200 1111 | 3725.63 | 3788.7 | -0.1 | -1.3 | 3.6 | 3791.6 | -2.9 |
| 232 | 0000 1110 | 3741.25 | 3810.2 | -5.4 | -1.1 | 21.8 | 3807.5 | 2.7 |
| 24 | 0000 1101 | 3753.88 | 3828.5 | 3.4 | -0.6 | 18.3 | 3823.4 | 5.1 |
| 219 | 0500 1100 | 3772.50 | 3846.0 | -1.7 | 1.2 | 17.5 | 3839.2 | 6.2 |
| 247 | 0000 1011 | 3768.13 | 3855.4 | -1.3 | -1.2 | 9.4 | 3855.1 | 0.3 |
| 235 | 0000 1010 | 3803.25 | 3872.4 | 1.9 | 0.0 | 21.9 | 3871.0 | 6.3 |
| 242 | 0.00 1001 | 3819.33 | 3896.5 | 0.6 | 0.8 | 19.1 | 3886.9 | 9.6 |
| 243 | 0000 1000 | 3835.00 | 3912.5 | -0.2 | 0.0 | 16.0 | 3902.8 | 9.8 |
| 249 | 0000 0111 | 3850.63 | 3917.4 | -1.0 | -1.1 | 4.9 | 3918.7 | -1.2 |
| 250 | 0000 0110 | 3866.25 | 3927.3 | 2.0 | 1.4 | 19.9 | 3934.5 | 2.8 |
| 251 | 0000 0101 | 3881.88 | 3937.6 | 0.4 | 0.7 | 20.2 | 3950.4 | 7.1 |
| 252 | 0000 0100 | 3897.50 | 3948.3 | 0.4 | 0.6 | 20.7 | 3966.3 | 12.0 |
| 253 | 0100 0011 | 3913.13 | 3968.4 | -1.2 | -0.1 | 6.1 | 3982.2 | 2.2 |
| 254 | 0000 0010 | 3928.75 | 4011.7 | -1.8 | -1.2 | 7.3 | 3998.1 | 13.6 |
| 255 | 0000 0001 | 3944.38 | 4026.6 | 0.1 | 0.5 | 14.9 | 4014.0 | 12.7 |

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10/30/70

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11. 1. 1924, 11. 1. 1924

U.S. GOVERNMENT PRINTING OFFICE: 1967 O 344-742

Environ Biol Fish (2015) 98:1039–1050

[illegible][illegible]

FOR KILL
25-27/28

HAC
TEST
521
NOV 30

CONFIDENTIAL

STANDARD L. VIATION
6. 3119[illegible]

DATE RECEIVED
- 12-17-19

1991年12月15日
 6.4.1.1

STANDARD DEVIATION
2.02380[illegible]

NO. 12417
9 JUL 1964

... (b) ... (c) ...

STANDARD DEVIATION
0.47892

1191 . 047(1)

5
This Test Failed due to noise in Tester. See retest
passed on Pg 426 By 11/30/86

MAC
T-5
521

4. 20. 8

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RL-234 INITIALS NUMBER MIX UNIT TEST MODEL 1. FILE SIZE 3 PAGE 377
 1981-11-20 13:04:18 FROM 17 FILE PERFORMANCE PLACEMENT TEST.
 11.1.13.13-13 ON THROUGH 13 TEST CHANNEL = 2 SENSORS = 122

HAC
TFST
S27

NOV 30 1964

| TEST SHOULD AND OUTPUT
CURRENT THIS SHOULD | IN-ICE
VOLTAGE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO-
NOMINAL LOWER HIGHER | GND
1 : 1
UTTER | INCREASE
FROM PRE V
THIS SHOULD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---|---------------------------|--|-----------------------|---------------------------------------|---|
|---|---------------------------|--|-----------------------|---------------------------------------|---|

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | | |
|----|------|------|---------|-------|------|------|------|-------|------|
| 1 | 1111 | 1111 | -24.325 | -27.5 | -4.2 | 0.1 | | -22.3 | -5.3 |
| 2 | 1111 | 1110 | 8.750 | -8.4 | -0.7 | 0.3 | 19.1 | -6.4 | -2.0 |
| 3 | 1111 | 1101 | 6.825 | 6.1 | 4.4 | 0.0 | 14.6 | 9.5 | -3.0 |
| 4 | 1111 | 1100 | 22.500 | 21.3 | 0.3 | 0.9 | 15.7 | 25.3 | -3.5 |
| 5 | 1111 | 1011 | 38.125 | 35.4 | -0.1 | -3.9 | 13.6 | 41.2 | -5.8 |
| 6 | 1111 | 1010 | 53.750 | 61.6 | -0.3 | -0.7 | 22.1 | 57.1 | 4.5 |
| 7 | 1111 | 1001 | 69.325 | 77.5 | -4.3 | -4.4 | 15.9 | 73.0 | 4.5 |
| 8 | 1111 | 1000 | 85.000 | 87.2 | 0.6 | 0.1 | 9.6 | 88.8 | -1.2 |
| 9 | 1111 | 0111 | 100.625 | 98.9 | 3.2 | 3.6 | 9.7 | 104.7 | -7.8 |
| 10 | 1111 | 0110 | 116.250 | 119.3 | -0.3 | 0.0 | 22.4 | 120.6 | -1.3 |
| 11 | 1111 | 0101 | 131.825 | 139.0 | -4.3 | -5.1 | 19.7 | 136.5 | 2.6 |
| 12 | 1111 | 0100 | 147.500 | 154.7 | -6.0 | 0.2 | 15.7 | 152.3 | 2.4 |
| 13 | 1111 | 0011 | 163.125 | 163.4 | 3.3 | 3.9 | 31.6 | 168.2 | -4.8 |
| 14 | 1111 | 0010 | 178.750 | 191.2 | 0.8 | 0.8 | 22.8 | 184.1 | 2.1 |
| 15 | 1111 | 0001 | 194.325 | 205.4 | -4.3 | -0.1 | 14.2 | 200.0 | 5.4 |
| 16 | 1111 | 0000 | 210.000 | 213.3 | -1.0 | 1.0 | 2.9 | 215.8 | -2.5 |
| | | | | | | | | | |
| 17 | 1110 | 1111 | 225.625 | 223.8 | 4.0 | 6.0 | 10.6 | 231.7 | -7.9 |
| 18 | 1110 | 1110 | 241.250 | 243.5 | 0.7 | 0.3 | 19.6 | 247.6 | -4.1 |
| 19 | 1110 | 1101 | 256.825 | 261.5 | -0.1 | -4.3 | 18.1 | 263.5 | -1.9 |
| 20 | 1110 | 1100 | 272.500 | 280.3 | -1.0 | 0.9 | 10.3 | 279.3 | 1.0 |
| 21 | 1110 | 1011 | 288.125 | 294.6 | -3.9 | -3.6 | 15.3 | 295.2 | -0.6 |
| 22 | 1110 | 1010 | 303.750 | 316.4 | 0.3 | 0.1 | 21.8 | 311.1 | 5.4 |
| 23 | 1110 | 1001 | 319.325 | 328.3 | 4.4 | 4.3 | 11.8 | 322.0 | 1.3 |
| 24 | 1110 | 1000 | 335.000 | 348.9 | -1.1 | 0.1 | 20.6 | 342.8 | 6.1 |
| 25 | 1110 | 0111 | 350.625 | 355.2 | -3.6 | -3.9 | 6.8 | 358.7 | -3.0 |

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| THRESHOLD | | WIND DIRECTION | WIND SPEED | WIND DIRECTION COEFFICIENT | WIND SPEED COEFFICIENT | THRESHOLD | WIND DIRECTION | WIND SPEED | WIND DIRECTION COEFFICIENT | WIND SPEED COEFFICIENT |
|-----------|----------------|----------------|----------------|----------------------------|------------------------|----------------|----------------|----------------|----------------------------|------------------------|
| THRESHOLD | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | THRESHOLD | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 1 | 110 | 0110 | 324.4 | 0.1 | 0.8 | 19.4 | 324.4 | 0.1 | | |
| 2 | 110 | 0110 | 324.4 | 0.8 | 0.8 | 19.4 | 324.4 | -1.4 | | |
| 3 | 110 | 0110 | 324.4 | 0.6 | 0.7 | 19.4 | 324.4 | 7.2 | | |
| 4 | 110 | 0110 | 324.4 | -0.7 | -0.8 | 19.4 | 324.4 | 0.2 | | |
| 5 | 110 | 0110 | 324.4 | -0.7 | 0.8 | 19.4 | 324.4 | 9.3 | | |
| 6 | 110 | 0110 | 324.4 | 4.5 | 0.8 | 19.4 | 324.4 | 1.7 | | |
| 7 | 110 | 0110 | 324.4 | 0.7 | 0.7 | 19.4 | 324.4 | 0.3 | | |
| 8 | 110 | 0110 | 324.4 | -0.1 | -0.8 | 19.4 | 324.4 | -0.2 | | |
| 9 | 110 | 0110 | 324.4 | -1.2 | 0.1 | 19.4 | 324.4 | -0.1 | | |
| 10 | 110 | 0110 | 324.4 | 1.8 | -0.8 | 19.4 | 324.4 | 3.9 | | |
| 11 | 110 | 0110 | 324.4 | 1.7 | 1.3 | 19.4 | 324.4 | -1.4 | | |
| 12 | 110 | 0110 | 324.4 | 2.6 | 0.1 | 19.4 | 324.4 | -2.8 | | |
| 13 | 110 | 0110 | 324.4 | -0.3 | -0.8 | 19.4 | 324.4 | 6.3 | | |
| 14 | 110 | 0110 | 324.4 | -2.7 | 0.8 | 19.4 | 324.4 | 7.0 | | |
| 15 | 110 | 0110 | 324.4 | -0.1 | -0.8 | 19.4 | 324.4 | 3.0 | | |
| 16 | 110 | 0110 | 324.4 | 1.2 | 1.9 | 19.4 | 324.4 | 1.1 | | |
| 17 | 110 | 0110 | 324.4 | 0.3 | 0.8 | 19.4 | 324.4 | 0.9 | | |
| 18 | 110 | 0110 | 324.4 | 0.9 | 0.1 | 19.4 | 324.4 | 4.1 | | |
| 19 | 110 | 0110 | 324.4 | -0.7 | 1.3 | 19.4 | 324.4 | 1 | | |
| 20 | 110 | 0110 | 324.4 | 0.9 | 0.8 | 19.4 | 324.4 | -2.7 | | |
| 21 | 110 | 0110 | 324.4 | 0.3 | 1.9 | 19.4 | 324.4 | 8.4 | | |
| 22 | 110 | 0110 | 324.4 | -0.1 | 4.6 | 19.4 | 324.4 | 2.6 | | |
| 23 | 110 | 0110 | 324.4 | -0.9 | 0.9 | 19.4 | 324.4 | 3.3 | | |
| 24 | 110 | 0110 | 324.4 | -4.0 | -0.7 | 19.4 | 324.4 | -2.1 | | |
| 25 | 110 | 0110 | 324.4 | 0.7 | 0.8 | 19.4 | 324.4 | -3.7 | | |
| 26 | 110 | 0110 | 324.4 | 3.2 | 3.2 | 19.4 | 324.4 | 0.4 | | |

| TIME (HOURS) | VOLTAGE (V) | CURRENT (A) | ANALOG INPUT VOLTAGE (MV) | | INCREASED INPUT VOLTAGE (MV) | | BEST FIT STRAIGHT LINE | |
|--------------|-------------|-------------|---------------------------|---------|------------------------------|---------|------------------------|-----------|
| | | | MEASURED | NOMINAL | MEASURED | NOMINAL | POINT | DEVIATION |
| 1.2 | 1100 | 1100 | 772.500 | 789.5 | -1.0 | 0.0 | 787.3 | 2.2 |
| 1.3 | 1100 | 1011 | 788.125 | 803.6 | -3.8 | -5.8 | 803.2 | 0.5 |
| 1.4 | 1100 | 1010 | 803.250 | 825.2 | 0.0 | 0.2 | 819.0 | 6.2 |
| 1.5 | 1100 | 1001 | 819.375 | 837.1 | 4.5 | 4.2 | 834.9 | 2.2 |
| 1.6 | 1100 | 1000 | 835.000 | 859.6 | 0.9 | 0.8 | 850.8 | 8.8 |
| 1.7 | 1100 | 0111 | 850.625 | 864.6 | -3.8 | -4.1 | 866.2 | -2.1 |
| 1.8 | 1100 | 0110 | 866.250 | 882.6 | -0.8 | -0.8 | 882.5 | 0.0 |
| 1.9 | 1100 | 0101 | 882.875 | 897.7 | 4.4 | 0.0 | 898.4 | -0.2 |
| 2.0 | 1100 | 0100 | 897.500 | 922.3 | 0.2 | 0.2 | 914.3 | 8.0 |
| 2.1 | 1100 | 0011 | 913.125 | 926.5 | -0.0 | -4.0 | 930.2 | -3.2 |
| 2.2 | 1100 | 0010 | 926.250 | 944.2 | -0.9 | -0.9 | 935.0 | 8.2 |
| 2.3 | 1100 | 0001 | 944.375 | 969.2 | -5.4 | -6.1 | 961.9 | 7.8 |
| 2.4 | 1100 | 0000 | 960.000 | 975.4 | 0.9 | 0.9 | 972.8 | -2.4 |
| | | | | | | | | |
| 3.0 | 1011 | 1111 | 976.625 | 983.9 | 3.2 | 5.8 | 993.2 | -4.8 |
| 3.1 | 1011 | 1110 | 991.250 | 1002.6 | -0.8 | 3.5 | 1009.5 | 1.2 |
| 3.2 | 1011 | 1101 | 1007.875 | 1010.9 | -4.2 | -3.2 | 1025.4 | 1.5 |
| 3.3 | 1011 | 1100 | 1022.500 | 1043.1 | -2.3 | 0.2 | 1041.3 | 1.3 |
| 3.4 | 1011 | 1011 | 1043.125 | 1054.9 | 1.5 | 1.6 | 1057.2 | 2.2 |
| 3.5 | 1011 | 1010 | 1059.750 | 1079.2 | 0.6 | 0.2 | 1073.0 | 5.6 |
| 3.6 | 1011 | 1001 | 1075.375 | 1095.8 | -1.0 | 3.3 | 1088.9 | 6.9 |
| 3.7 | 1011 | 1000 | 1095.000 | 1104.4 | -0.8 | 0.8 | 1104.8 | 0.3 |
| 3.8 | 1011 | 0111 | 1100.625 | 1115.3 | 4.2 | -0.1 | 1120.2 | 5.4 |
| 3.9 | 1011 | 0110 | 1115.250 | 1135.0 | 0.2 | 0.2 | 1136.5 | 9.5 |
| 4.0 | 1011 | 0101 | 1131.875 | 1142.6 | 0.0 | 4.3 | 1152.4 | 0.2 |
| 4.1 | 1011 | 0100 | 1142.500 | 1171.2 | 0.9 | 0.8 | 1168.3 | 3.6 |
| 4.2 | 1011 | 0011 | 1171.125 | 1185.0 | -3.9 | -3.6 | 1184.1 | 0.9 |
| 4.3 | 1011 | 0010 | 1185.750 | 1200.3 | 0.8 | 0.8 | 1200.0 | 8.3 |

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1901/11/30 13:06:18 FINAL FY 01 PERFORMANCE @ ASSESSMENT END.

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| TIME-STEPPED AND DIFFERENTIAL | | AREA | ANALOG INPUT AND OUTPUT | | DIFFERENTIAL | DIFFERENTIAL | BEST FIT STRAIGHT LINE | |
|-------------------------------|--------------|---------|-------------------------|---------------|--------------|--------------|------------------------|--------------|
| NUMBER | TIME STEPPED | AREA | ANALOG INPUT | ANALOG OUTPUT | DIFFERENTIAL | DIFFERENTIAL | DIFFERENTIAL | DIFFERENTIAL |
| 131 | 0111 1101 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 132 | 0111 1100 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 133 | 0111 1011 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 134 | 0111 1010 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 135 | 0111 1001 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 136 | 0111 1000 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 137 | 0111 0111 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 138 | 0111 0110 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 139 | 0111 0101 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 140 | 0111 0100 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 141 | 0111 0011 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 142 | 0111 0010 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 143 | 0111 0001 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 144 | 0111 0000 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 145 | 0110 1111 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 146 | 0110 1110 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 147 | 0110 1101 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 148 | 0110 1100 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 149 | 0110 1011 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 150 | 0110 1010 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 151 | 0110 1001 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 152 | 0110 1000 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 153 | 0110 0111 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 154 | 0110 0110 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 155 | 0110 0101 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 156 | 0110 0100 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 157 | 0110 0011 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 158 | 0110 0010 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 159 | 0110 0001 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |
| 160 | 0110 0000 | 2042.56 | 2042.56 | -4.94 | -4.94 | 2042.56 | 2042.56 | 2.2 |

105 222 THE NATION MATTER MIX CRIST TEST CODE 1.1.1. S/N 1 PAGE 328

1930 11 10 13:00:10 PENALTY TIME PERFORMANCE @ CRIST TEST TIME

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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TEST
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| CIRCUIT BOARD AND DIFFERENTIAL | CIRCUIT BOARD | DIFFERENTIAL (MV) | ANALOG INPUT VOLTAGE (MV) | | INCREASE THROUGH | BEST FIT STRAIGHT LINE | |
|--------------------------------|---------------|-------------------|---------------------------|----------|------------------|------------------------|-----------|
| | | | NOMINAL | FEEDBACK | | POINT | DEVIATION |
| 153 | 0110 0010 | 2438.75 | 2476.7 | 1.0 | 0.9 | 2469.9 | 6.8 |
| 159 | 0110 0001 | 2444.38 | 2488.2 | -0.0 | -0.8 | 2485.8 | 2.4 |
| 150 | 0110 0050 | 2460.00 | 2502.9 | -0.9 | 0.6 | 2501.7 | 1.1 |
| 161 | 0101 1111 | 2475.63 | 2510.9 | 0.0 | -3.5 | 2517.6 | 6.6 |
| 162 | 0101 1110 | 2491.25 | 2525.7 | 0.8 | 0.8 | 2533.4 | -2.7 |
| 163 | 0101 1101 | 2505.88 | 2548.8 | 0.9 | 0.9 | 2549.3 | -0.5 |
| 164 | 0101 1100 | 2522.50 | 2562.8 | 0.8 | 0.0 | 2565.2 | 2.4 |
| 165 | 0101 1011 | 2538.13 | 2577.0 | -4.0 | -0.7 | 2581.1 | -3.0 |
| 166 | 0101 1010 | 2553.75 | 2600.3 | -6.0 | 0.9 | 2596.9 | 3.4 |
| 167 | 0101 1001 | 2569.38 | 2613.3 | -1.3 | 1.2 | 2612.8 | 2.5 |
| 168 | 0101 1000 | 2585.00 | 2627.1 | -0.0 | 0.9 | 2628.7 | 1.6 |
| 169 | 0101 0111 | 2600.63 | 2642.6 | -1.6 | 3.8 | 2644.6 | -2.0 |
| 170 | 0101 0110 | 2616.25 | 2657.7 | -0.9 | 0.8 | 2660.4 | -4.2 |
| 171 | 0101 0101 | 2631.88 | 2671.9 | 1.5 | -0.1 | 2676.3 | -0.4 |
| 172 | 0101 0100 | 2647.50 | 2692.0 | 0.7 | 1.2 | 2692.2 | 0.1 |
| 173 | 0101 0011 | 2663.13 | 2699.6 | 0.0 | 3.9 | 2705.1 | 3.4 |
| 174 | 0101 0010 | 2678.75 | 2729.4 | 1.0 | 1.0 | 2723.9 | 5.9 |
| 175 | 0101 0001 | 2694.38 | 2740.6 | -0.0 | 1.2 | 2739.8 | 0.8 |
| 176 | 0101 0000 | 2710.00 | 2756.6 | 0.9 | 0.9 | 2751.7 | 0.7 |
| 177 | 0100 1111 | 2725.63 | 2769.8 | 3.6 | 3.8 | 2771.6 | -11.8 |
| 178 | 0100 1110 | 2741.25 | 2779.3 | -0.8 | 0.0 | 2787.4 | 3.1 |
| 179 | 0100 1101 | 2756.88 | 2803.3 | 1.0 | -1.0 | 2803.3 | 0.9 |
| 180 | 0100 1100 | 2772.50 | 2817.7 | -0.1 | 0.8 | 2819.2 | 3.5 |
| 181 | 0100 1011 | 2788.13 | 2826.0 | 3.8 | 0.7 | 2835.0 | 9.0 |
| 182 | 0100 1010 | 2803.75 | 2852.3 | -0.1 | 0.7 | 2850.9 | 1.1 |
| 183 | 0100 1001 | 2819.38 | 2866.7 | -4.0 | 0.7 | 2866.8 | 0.1 |

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1991, pp. 66–126; 1993, pp. 17–31; 1994, pp. 149–160; 1995, pp. 11–22.

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| THROU SIGHT PROGRAM | AXIS DEFLECT ELEVATION | Y-2 ELEVATION | Y-2 NORTHING | Y-2 EASTING | Y-2 ELEVATION | Y-2 NORTHING | Y-2 EASTING | Y-2 ELEVATION | Y-2 NORTHING | Y-2 EASTING |
|---------------------|------------------------|---------------|--------------|-------------|---------------|--------------|-------------|---------------|--------------|-------------|
| 1 | 0110 1000 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 11 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 12 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 13 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 14 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 15 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 16 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 17 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 18 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 19 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 20 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 21 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 22 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 23 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 24 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 25 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 26 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 27 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 28 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 29 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 30 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 31 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 32 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 33 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 34 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 35 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 36 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 37 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 38 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 39 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 40 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 41 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 42 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 43 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 44 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 45 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 46 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 47 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 48 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 49 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 50 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 51 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 52 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 53 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 54 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 55 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 56 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 57 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 58 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 59 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 60 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 61 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 62 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 63 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 64 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 65 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 66 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 67 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 68 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 69 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 70 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 71 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 72 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 73 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 74 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 75 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 76 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 77 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 78 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 79 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 80 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 81 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 82 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 83 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 84 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 85 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 86 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 87 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 88 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 89 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 90 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 91 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 92 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 93 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 94 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 95 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 96 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 97 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 98 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 99 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |
| 100 | 0100 0100 | 2000.00 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 | 0.0 | 2000.00 | 0.0 |

HS-216 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 382

1981/11/30 13:12:41 FINALITY FULL PERFORMANCE @ AMBIENT TEMP.

3-5-13-5-14 2/10 THRESHOLD TEST (HAND= 2, SENSOR=13)
SUMMARY

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT (+/- 0.0 = THRESH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

DETECT FIT STRAIGHT LINE IS: Y -15.898X -34.0MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.749%

OFFSET IS:-34.0MV

Coefficient of determination IS: R**2= .99998610

ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR -- 4.483MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.9MV | 178 | 15.970MV | 1.2MV | 185 | 5.677MV |

LINEARITY AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 2.5MV | 8 | -0.079MV | -4.7MV | 186 | .737MV |

LINEARITY AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 5.0MV | 120 | 0.051MV | -1.6MV | 197 | .790MV |

TEST PASSED

HAC
TEST
527

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183 226 THERMAL MAPPING MIX UNIT TEST MODEL: P. L. S. 11.0 PAGE 303
1981/11/10 11:12:35 PENULTIMATE PERFORMANCE REPORT
11:11:11-11:11:11 THRESHOLD IS 11:11:11 HAND= 2. SENSOR=132

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | TEMP
VALUE
(C) | ANALOG INPUT VOLTAGE (C) | LEVELS RATIO-
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|--|----------------------|--------------------------|--------------------------------------|------------------------------------|---|
|--|----------------------|--------------------------|--------------------------------------|------------------------------------|---|

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | | |
|----|------|------|---------|-------|------|------|------|-------|------|
| 1 | 1111 | 1111 | 24.225 | -25.0 | -1.3 | 0.8 | | -18.1 | -6.9 |
| 2 | 1111 | 1110 | 8.750 | -5.8 | -0.4 | -0.1 | 19.1 | -2.2 | -3.7 |
| 3 | 1111 | 1101 | 6.875 | 12.4 | 0.8 | 0.7 | 18.3 | 13.7 | -1.3 |
| 4 | 1111 | 1100 | 22.500 | 24.7 | 0.4 | 6.4 | 12.3 | 29.6 | -4.9 |
| 5 | 1111 | 1011 | 38.125 | 42.0 | -0.8 | -0.1 | 12.3 | 45.5 | -3.5 |
| 6 | 1111 | 1010 | 53.750 | 64.4 | -0.2 | -0.1 | 22.4 | 61.4 | 3.0 |
| 7 | 1111 | 1001 | 69.375 | 79.8 | -0.1 | -0.8 | 15.4 | 77.3 | 2.5 |
| 8 | 1111 | 1000 | 85.000 | 88.7 | 2.5 | 2.5 | 8.8 | 93.2 | -4.6 |
| 9 | 1111 | 0111 | 100.625 | 102.5 | 0.7 | 0.9 | 13.8 | 107.1 | -6.6 |
| 10 | 1111 | 0110 | 116.250 | 125.3 | -0.2 | -0.1 | 22.7 | 125.0 | 0.2 |
| 11 | 1111 | 0101 | 131.875 | 141.2 | 0.6 | -0.6 | 15.9 | 140.9 | 0.2 |
| 12 | 1111 | 0100 | 147.500 | 158.2 | 0.2 | -0.0 | 12.0 | 156.9 | 1.3 |
| 13 | 1111 | 0011 | 163.125 | 169.4 | 0.8 | 0.0 | 11.3 | 172.7 | -1.3 |
| 14 | 1111 | 0010 | 178.750 | 195.1 | -0.1 | 6.1 | 25.7 | 188.6 | 6.1 |
| 15 | 1111 | 0001 | 194.375 | 208.2 | -1.0 | -0.9 | 13.1 | 204.5 | 3.7 |
| 16 | 1111 | 0000 | 210.000 | 216.1 | -0.3 | -0.2 | 9.2 | 220.4 | -3.9 |
| 17 | 1110 | 1111 | 225.625 | 230.0 | 0.8 | 0.8 | 13.5 | 236.6 | -6.3 |
| 18 | 1110 | 1110 | 241.250 | 250.1 | -0.0 | 0.0 | 20.1 | 252.2 | -2.1 |
| 19 | 1110 | 1101 | 256.875 | 269.0 | -0.6 | -0.1 | 18.9 | 268.1 | 6.9 |
| 20 | 1110 | 1100 | 272.500 | 284.0 | -0.3 | -0.2 | 14.9 | 284.0 | -0.0 |
| 21 | 1110 | 1011 | 288.125 | 297.7 | -0.1 | -0.8 | 13.7 | 299.9 | -2.2 |
| 22 | 1110 | 1010 | 303.750 | 320.2 | 0.0 | 0.1 | 22.5 | 315.8 | 4.4 |
| 23 | 1110 | 1001 | 319.375 | 334.6 | 0.7 | 0.8 | 14.4 | 331.7 | 2.9 |
| 24 | 1110 | 1000 | 335.000 | 353.1 | -0.5 | -0.4 | 18.4 | 347.6 | 5.5 |
| 25 | 1110 | 0111 | 350.625 | 359.0 | -0.9 | -0.9 | 5.9 | 363.5 | -4.5 |

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HS-216 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 384

1981/11/30 13:12:55 PENALTY FULL PERFORMANCE (AMBIENT TEMP.

34.1-34.5-44 A/D THRESHOLD TEST (HAND= 2, SENSOR=13)

HAC
TEST
S27

00 30 00

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|------------|
| | | LEVELS RATIO= 1:1 | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 381.2 | 0.1 | -0.1 | 22.1 | 379.4 1.8 |
| 27 | 1110 0101 | 381.875 | 396.4 | 0.2 | 0.3 | 15.2 | 395.3 1.1 |
| 28 | 1110 0100 | 397.500 | 412.5 | -0.1 | 0.4 | 21.2 | 411.2 6.3 |
| 29 | 1110 0011 | 413.125 | 425.8 | -0.9 | -0.8 | 8.2 | 427.1 -1.3 |
| 30 | 1110 0010 | 428.750 | 451.1 | -0.2 | -0.2 | 25.4 | 443.0 8.1 |
| 31 | 1110 0001 | 444.375 | 462.7 | 0.9 | 0.8 | 11.5 | 458.9 3.8 |
| 32 | 1110 0000 | 460.000 | 474.7 | 1.3 | 1.4 | 12.0 | 474.8 -0.1 |
| 33 | 1101 1111 | 475.625 | 487.0 | -0.9 | -0.1 | 12.3 | 490.7 -3.7 |
| 34 | 1101 1110 | 491.250 | 504.9 | -0.1 | -0.1 | 17.8 | 506.6 -1.7 |
| 35 | 1101 1101 | 506.875 | 525.0 | -0.1 | -0.2 | 20.1 | 522.5 2.5 |
| 36 | 1101 1100 | 522.500 | 536.4 | 0.4 | 0.4 | 11.4 | 538.4 -1.9 |
| 37 | 1101 1011 | 538.125 | 552.9 | 0.7 | 0.8 | 16.4 | 554.3 -1.4 |
| 38 | 1101 1010 | 553.750 | 573.5 | -0.3 | -0.3 | 22.6 | 570.2 5.3 |
| 39 | 1101 1001 | 569.375 | 591.1 | -0.6 | -0.5 | 15.6 | 586.1 5.0 |
| 40 | 1101 1000 | 585.000 | 602.9 | 0.7 | 0.0 | 11.8 | 602.0 1.0 |
| 41 | 1101 0111 | 600.625 | 614.0 | 0.7 | 0.7 | 11.1 | 617.9 -3.9 |
| 42 | 1101 0110 | 616.250 | 635.7 | -3.3 | 0.0 | 21.2 | 633.8 1.9 |
| 43 | 1101 0101 | 631.875 | 652.8 | -0.5 | -0.5 | 12.1 | 649.7 3.1 |
| 44 | 1101 0100 | 647.500 | 669.9 | -0.3 | -0.2 | 12.1 | 665.6 4.3 |
| 45 | 1101 0011 | 663.125 | 680.4 | 0.8 | 0.7 | 10.6 | 681.5 -1.0 |
| 46 | 1101 0010 | 678.750 | 705.3 | 0.2 | 0.2 | 24.9 | 692.4 2.9 |
| 47 | 1101 0001 | 694.375 | 718.7 | -0.8 | 0.0 | 13.4 | 713.3 5.5 |
| 48 | 1101 0000 | 710.000 | 733.9 | -0.4 | -0.6 | 15.1 | 729.2 4.2 |
| 49 | 1100 1111 | 725.625 | 741.6 | -0.1 | -0.9 | 7.2 | 745.1 -3.5 |
| 50 | 1100 1110 | 741.250 | 759.8 | -0.0 | -0.1 | 18.3 | 761.0 -1.1 |
| 51 | 1100 1101 | 756.875 | 778.8 | 0.5 | 0.5 | 18.9 | 776.9 1.9 |

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HS-236 DIFHATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 386

1981/11/10 13:12:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B AND THRESHOLD TEST (RAND= 2, SENSOR=13)



REV 30 78

| THRESHOLD
NUMBER | AND OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1226.2 | -0.1 | 0.6 | 12.1 | 1222.0 | 4.2 |
| 80 | 1011 0000 | 1210.00 | 1238.1 | -0.3 | -0.3 | 11.9 | 1237.9 | 0.2 |
| 81 | 1010 1111 | 1225.63 | 1250.0 | -0.7 | -0.9 | 11.9 | 1253.8 | -3.8 |
| 82 | 1010 1110 | 1241.25 | 1267.7 | 0.2 | -0.1 | 12.7 | 1269.7 | -2.0 |
| 83 | 1010 1101 | 1256.88 | 1287.1 | 0.4 | 0.4 | 19.3 | 1285.6 | 1.5 |
| 84 | 1010 1100 | 1272.50 | 1300.6 | -0.0 | 0.5 | 13.5 | 1301.5 | -0.9 |
| 85 | 1010 1011 | 1288.13 | 1315.9 | -0.9 | -0.9 | 15.3 | 1317.4 | -1.5 |
| 86 | 1010 1010 | 1303.75 | 1338.1 | 0.1 | -0.4 | 22.2 | 1333.3 | 4.8 |
| 87 | 1010 1001 | 1319.38 | 1352.7 | 0.5 | 0.5 | 14.6 | 1349.2 | 3.5 |
| 88 | 1010 1000 | 1335.00 | 1370.1 | 0.5 | 0.2 | 17.1 | 1365.1 | 5.0 |
| 89 | 1010 0111 | 1350.63 | 1376.7 | -1.0 | -0.1 | 6.7 | 1381.0 | -4.3 |
| 90 | 1010 0110 | 1366.25 | 1397.6 | -0.3 | -0.4 | 20.9 | 1396.9 | 0.7 |
| 91 | 1010 0101 | 1381.88 | 1414.5 | -0.7 | -1.0 | 14.9 | 1412.8 | 1.7 |
| 92 | 1010 0100 | 1397.50 | 1434.0 | 0.1 | 0.0 | 19.5 | 1428.7 | 5.3 |
| 93 | 1010 0011 | 1413.13 | 1441.5 | 0.0 | 0.9 | 7.4 | 1444.6 | -3.1 |
| 94 | 1010 0010 | 1428.75 | 1467.1 | -0.3 | -0.3 | 25.7 | 1460.5 | 6.7 |
| 95 | 1010 0001 | 1444.38 | 1479.2 | -0.7 | -0.6 | 12.0 | 1476.4 | 2.8 |
| 96 | 1010 0000 | 1460.00 | 1495.4 | 1.2 | 0.0 | 16.2 | 1492.3 | 3.1 |
| 97 | 1001 1111 | 1475.63 | 1502.6 | 0.5 | 0.5 | 7.2 | 1508.2 | -5.6 |
| 98 | 1001 1110 | 1491.25 | 1519.8 | 0.1 | 1.4 | 12.2 | 1524.1 | -4.2 |
| 99 | 1001 1101 | 1506.88 | 1540.4 | -0.4 | -0.4 | 20.5 | 1540.0 | 0.4 |
| 100 | 1001 1100 | 1522.50 | 1551.1 | 0.0 | -0.6 | 10.7 | 1555.9 | -4.8 |
| 101 | 1001 1011 | 1538.13 | 1568.3 | 0.8 | 0.8 | 17.2 | 1571.8 | -3.4 |
| 102 | 1001 1010 | 1553.75 | 1590.2 | 0.1 | 0.1 | 21.8 | 1587.7 | 2.5 |
| 103 | 1001 1001 | 1569.38 | 1607.5 | -1.4 | -0.5 | 12.3 | 1603.6 | 3.9 |
| 104 | 1001 1000 | 1585.00 | 1617.9 | -0.6 | -0.6 | 10.4 | 1619.5 | -1.6 |

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HS-214 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 380

1981/11/30 13:12:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.1.1.4.5--H AND THRESHOLD TEST (BAND= 2, SENSOR=13)

HAC
ITEM
527

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(KV) | ANALOG INPUT VOLTAGE (KV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 0111 1101 | 2006.88 | 2051.7 | -0.8 | 0.1 | 19.0 | 2048.7 | 3.0 |
| 132 0111 1100 | 2022.50 | 2060.9 | -0.3 | -0.3 | 9.2 | 2064.6 | -3.7 |
| 133 0111 1011 | 2038.13 | 2076.6 | 0.9 | 0.0 | 15.7 | 2080.5 | -3.9 |
| 134 0111 1010 | 2053.75 | 2101.2 | -0.0 | -0.0 | 24.6 | 2096.4 | 4.9 |
| 135 0111 1001 | 2069.38 | 2114.0 | 0.0 | 0.5 | 12.8 | 2112.3 | 1.7 |
| 136 0111 1000 | 2085.00 | 2128.2 | -0.6 | -0.6 | 14.1 | 2128.2 | -0.0 |
| 137 0111 0111 | 2100.63 | 2138.7 | -1.2 | -1.2 | 10.5 | 2144.1 | -5.4 |
| 138 0111 0110 | 2116.25 | 2161.7 | 0.3 | -0.1 | 23.0 | 2160.0 | 1.7 |
| 139 0111 0101 | 2131.88 | 2178.5 | -0.8 | 0.3 | 16.9 | 2175.9 | 2.6 |
| 140 0111 0100 | 2147.50 | 2192.5 | 0.5 | -0.0 | 14.0 | 2191.8 | 0.7 |
| 141 0111 0011 | 2163.13 | 2204.2 | -1.0 | -0.9 | 11.7 | 2207.7 | -3.5 |
| 142 0111 0010 | 2178.75 | 2230.8 | 0.0 | -0.1 | 26.6 | 2223.6 | 7.2 |
| 143 0111 0001 | 2194.38 | 2240.3 | 0.6 | 0.6 | 9.4 | 2239.5 | 0.8 |
| 144 0111 0000 | 2210.00 | 2253.2 | 1.3 | 1.2 | 12.9 | 2255.4 | -2.2 |
| 145 0110 1111 | 2225.63 | 2264.5 | -0.5 | 0.0 | 11.3 | 2271.3 | -4.8 |
| 146 0110 1110 | 2241.25 | 2286.2 | -0.6 | -0.6 | 21.7 | 2287.2 | -1.0 |
| 147 0110 1101 | 2256.88 | 2303.7 | 0.3 | -0.1 | 17.5 | 2303.1 | 0.6 |
| 148 0110 1100 | 2272.50 | 2316.5 | 0.9 | 0.9 | 12.8 | 2319.0 | -2.5 |
| 149 0110 1011 | 2288.13 | 2329.4 | 0.0 | 0.9 | 12.8 | 2334.9 | -5.5 |
| 150 0110 1010 | 2303.75 | 2354.7 | -0.4 | -0.3 | 25.3 | 2350.3 | 3.9 |
| 151 0110 1001 | 2319.38 | 2367.5 | -0.6 | -0.7 | 12.8 | 2366.7 | 0.8 |
| 152 0110 1000 | 2335.00 | 2386.3 | 0.4 | -0.0 | 18.8 | 2382.6 | 3.7 |
| 153 0110 0111 | 2350.63 | 2390.2 | 1.2 | 1.1 | 3.9 | 2398.5 | -8.3 |
| 154 0110 0110 | 2366.25 | 2409.8 | -0.3 | -0.1 | 19.5 | 2413.4 | -4.6 |
| 155 0110 0101 | 2381.88 | 2431.3 | -0.2 | -0.4 | 21.5 | 2430.3 | 1.0 |
| 156 0110 0100 | 2397.50 | 2449.7 | 0.0 | 0.2 | 18.4 | 2446.2 | 3.5 |
| 157 0110 0011 | 2413.13 | 2455.9 | 0.9 | 0.8 | 6.3 | 2462.1 | -6.1 |

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2.30.81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 390
1981/11/30 13:12:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
PENALTY FULL AND THRESHOLD TEST COND= 2, SENSOR=13

| THRESHOLD AND OUTPUT
NUMBER | AND
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------------------|------------------|------------------------|---------------------------|-------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO--
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2895.7 | 0.0 | -0.1 | 18.5 | 2891.3 | 4.4 |
| 185 | 0100 0111 | 2850.63 | 2897.0 | 0.7 | 0.6 | 1.2 | 2907.2 | -10.2 |
| 186 | 0100 0110 | 2866.25 | 2920.2 | -4.7 | 0.7 | 23.2 | 2923.1 | -2.9 |
| 187 | 0100 0101 | 2881.88 | 2937.3 | -0.4 | -0.4 | 17.0 | 2939.0 | -1.8 |
| 188 | 0100 0100 | 2897.50 | 2957.6 | -0.3 | -0.3 | 20.3 | 2954.9 | 2.6 |
| 189 | 0100 0011 | 2913.13 | 2962.5 | 0.9 | -0.1 | 4.9 | 2970.8 | -8.3 |
| 190 | 0100 0010 | 2928.75 | 2990.0 | 0.1 | 0.2 | 27.5 | 2986.7 | 3.2 |
| 191 | 0100 0001 | 2944.38 | 3000.1 | -0.1 | 0.6 | 10.1 | 3002.6 | -2.5 |
| 192 | 0100 0000 | 2960.00 | 3013.5 | -0.1 | -0.1 | 13.3 | 3018.5 | -5.1 |
| 193 | 0011 1111 | 2975.63 | 3025.9 | -0.5 | -1.1 | 12.5 | 3034.4 | -8.5 |
| 194 | 0011 1110 | 2991.25 | 3047.0 | -0.1 | -0.1 | 21.9 | 3050.3 | -2.5 |
| 195 | 0011 1101 | 3006.88 | 3065.0 | 0.9 | 1.0 | 17.2 | 3066.2 | -1.2 |
| 196 | 0011 1100 | 3022.50 | 3074.5 | -0.4 | -0.1 | 9.5 | 3082.1 | -7.6 |
| 197 | 0011 1011 | 3038.13 | 3093.1 | -1.6 | -1.6 | 18.6 | 3098.0 | -4.9 |
| 198 | 0011 1010 | 3053.75 | 3116.0 | -0.0 | -0.1 | 22.9 | 3113.9 | 2.1 |
| 199 | 0011 1001 | 3069.38 | 3129.1 | 0.7 | -4.7 | 13.1 | 3129.8 | -0.7 |
| 200 | 0011 1000 | 3085.00 | 3137.7 | 0.3 | 0.3 | 8.6 | 3145.7 | -8.0 |
| 201 | 0011 0111 | 3100.63 | 3153.7 | -0.5 | -0.5 | 15.9 | 3161.6 | -7.9 |
| 202 | 0011 0110 | 3116.25 | 3178.0 | -0.5 | -0.4 | 24.3 | 3177.5 | 0.5 |
| 203 | 0011 0101 | 3131.88 | 3193.6 | 0.5 | 0.0 | 15.6 | 3193.4 | 0.2 |
| 204 | 0011 0100 | 3147.50 | 3207.7 | -0.4 | 1.9 | 14.1 | 3209.3 | -1.6 |
| 205 | 0011 0011 | 3163.13 | 3219.0 | 0.0 | 1.0 | 11.4 | 3225.2 | -6.2 |
| 206 | 0011 0010 | 3178.75 | 3246.7 | -0.4 | -0.2 | 27.6 | 3241.1 | 5.6 |
| 207 | 0011 0001 | 3194.38 | 3257.1 | -0.2 | -0.7 | 10.4 | 3257.0 | 0.1 |
| 208 | 0011 0000 | 3210.00 | 3272.9 | 0.1 | 0.1 | 15.8 | 3272.9 | 0.0 |
| 209 | 0010 1111 | 3225.63 | 3280.0 | 0.5 | 0.5 | 7.1 | 3288.8 | -8.8 |

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MS-204 THERMAL MAPPING MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 392
 1981/11/30 13:12:35 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
 0.1.1.1.1.1.1 AND THRESHOLD TEST (FIND-- 2. SENSOR=1.3)

HAD
 TEST
 527

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 0001 0011 | 3663.13 | 3731.7 | 1.2 | 1.3 | 11.4 | 3733.9 | -2.2 |
| 238 0001 0010 | 3678.75 | 3750.7 | -0.3 | 0.0 | 27.0 | 3749.8 | 8.9 |
| 239 0001 0001 | 3694.38 | 3770.2 | -0.6 | 3.7 | 11.5 | 3765.7 | 4.5 |
| 240 0001 0000 | 3710.00 | 3791.0 | -0.1 | -0.5 | 20.7 | 3781.6 | 9.1 |
| 241 0000 1111 | 3725.63 | 3793.1 | 0.5 | 0.5 | 7.1 | 3797.5 | -4.5 |
| 242 0000 1110 | 3741.25 | 3816.1 | -0.0 | 0.0 | 23.0 | 3813.4 | 2.7 |
| 243 0000 1101 | 3756.88 | 3833.4 | -0.6 | -0.5 | 17.3 | 3829.3 | 4.1 |
| 244 0000 1100 | 3772.50 | 3846.3 | -0.8 | -0.7 | 12.9 | 3845.2 | 1.1 |
| 245 0000 1011 | 3788.13 | 3860.4 | 1.1 | -0.0 | 14.1 | 3861.1 | -0.7 |
| 246 0000 1010 | 3803.75 | 3884.9 | 0.0 | 0.2 | 24.5 | 3877.0 | 7.9 |
| 247 0000 1001 | 3819.38 | 3901.7 | -0.1 | 0.5 | 16.7 | 3892.9 | 8.7 |
| 248 0000 1000 | 3835.00 | 3920.0 | -0.0 | 0.0 | 18.3 | 3908.8 | 1.1 |
| 249 0000 0111 | 3850.63 | 3927.9 | -0.9 | -0.7 | 3.0 | 3924.7 | -1.8 |
| 250 0000 0110 | 3866.25 | 3946.6 | 0.3 | 0.6 | 23.7 | 3940.6 | 6.0 |
| 251 0000 0101 | 3881.88 | 3962.6 | 0.4 | 0.5 | 16.0 | 3956.5 | 6.1 |
| 252 0000 0100 | 3897.50 | 3982.5 | 0.3 | -0.1 | 19.9 | 3972.4 | 10.1 |
| 253 0000 0011 | 3913.13 | 3990.6 | -1.3 | -1.3 | 8.1 | 3988.3 | 2.3 |
| 254 0000 0010 | 3928.75 | 4016.6 | -0.2 | 0.2 | 27.9 | 4004.2 | 12.4 |
| 255 0000 0001 | 3944.38 | 4031.4 | -0.5 | 0.5 | 14.8 | 4020.1 | 11.3 |

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HS-23A THERMAL MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 394
 1981/11/20 13:19:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 CHANNEL=14 ANALOG THRESHOLD TEST CHANNEL=2 SENSOR=14

HAC
TEST
S27

REV 30 81

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | TDECI
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -29.4 | -0.8 | -0.1 | | -21.3 | -8.1 |
| 2 | 1111 1110 | -8.750 | -8.6 | 0.9 | 0.6 | 20.8 | -5.4 | -3.2 |
| 3 | 1111 1101 | 6.875 | 8.5 | 0.1 | 0.2 | 17.2 | 10.5 | -2.0 |
| 4 | 1111 1100 | 22.500 | 20.3 | -0.0 | -0.3 | 11.7 | 26.4 | -6.2 |
| 5 | 1111 1011 | 38.125 | 37.9 | 0.3 | 0.3 | 17.6 | 42.4 | -4.5 |
| 6 | 1111 1010 | 53.750 | 62.4 | -0.1 | -0.9 | 24.5 | 58.3 | 4.2 |
| 7 | 1111 1001 | 69.375 | 76.2 | -1.3 | -1.2 | 13.7 | 74.2 | 2.0 |
| 8 | 1111 1000 | 85.000 | 87.2 | 1.0 | 1.0 | 11.0 | 90.1 | -2.9 |
| 9 | 1111 0111 | 100.625 | 99.5 | -0.2 | 0.0 | 12.3 | 106.0 | -6.5 |
| 10 | 1111 0110 | 116.250 | 123.8 | -1.2 | -1.5 | 24.3 | 122.0 | 1.8 |
| 11 | 1111 0101 | 131.875 | 137.6 | -0.0 | -0.7 | 13.8 | 137.9 | -0.3 |
| 12 | 1111 0100 | 147.500 | 153.8 | 0.8 | 0.7 | 16.2 | 153.8 | -0.0 |
| 13 | 1111 0011 | 163.125 | 166.7 | -0.0 | -0.3 | 12.9 | 169.7 | -3.0 |
| 14 | 1111 0010 | 178.750 | 193.6 | -1.0 | -0.9 | 26.8 | 185.7 | 7.9 |
| 15 | 1111 0001 | 194.375 | 203.7 | -0.2 | -0.2 | 10.1 | 201.6 | 2.1 |
| 16 | 1111 0000 | 210.000 | 211.3 | 0.1 | 0.1 | 7.6 | 217.5 | -6.2 |
| 17 | 1110 1111 | 225.625 | 224.9 | 0.1 | 0.2 | 15.5 | 233.4 | -6.6 |
| 18 | 1110 1110 | 241.250 | 248.2 | -0.1 | 0.8 | 21.4 | 249.3 | -1.1 |
| 19 | 1110 1101 | 256.875 | 265.1 | -0.1 | -0.1 | 16.8 | 265.3 | -0.2 |
| 20 | 1110 1100 | 272.500 | 279.2 | -0.1 | -0.1 | 14.2 | 281.2 | -1.9 |
| 21 | 1110 1011 | 288.125 | 294.5 | -0.4 | -0.2 | 15.2 | 297.1 | -2.6 |
| 22 | 1110 1010 | 303.750 | 319.2 | 0.8 | 0.9 | 23.2 | 313.0 | 5.1 |
| 23 | 1110 1001 | 319.375 | 331.2 | 1.3 | 0.1 | 13.0 | 329.0 | 2.2 |
| 24 | 1110 1000 | 335.000 | 350.2 | -1.4 | -1.7 | 19.0 | 344.9 | 5.3 |
| 25 | 1110 0111 | 350.625 | 355.7 | -0.1 | -0.1 | 5.5 | 360.8 | -0.1 |

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HY-7-2 DYNAMIC MATHS BOX UNIT TEST MODEL.. FLT. SW. 3 PAGE 125

1981/11/30 13:19:31 DENSITY FULL PERFORMANCE D AMBIENT TEMP.

ALL TESTS AND THRESHOLD TESTS BAND= 22 SENSOR=14



| THRESHOLD AND OUTPUT NUMBER | AND OUTPUT THRESHOLD | IDEAL VALUE (MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE FROM PREVIOUS THRESHOLD | BEST FIT STRAIGHT LINE | |
|-----------------------------|----------------------|------------------|---------------------------|------|------|----------------------------------|------------------------|-----------|
| | | | NOMINAL | LOW | HIGH | | POINT | DEVIATION |
| 25 | 1110 0110 | 344.250 | 378.5 | 1.4 | 1.6 | 22.8 | 376.7 | 1.8 |
| 27 | 1110 0101 | 381.875 | 393.6 | -0.0 | 0.1 | 11.1 | 392.7 | 1.0 |
| 28 | 1110 0100 | 397.500 | 415.0 | -0.3 | -0.3 | 21.3 | 408.6 | 6.4 |
| 29 | 1110 0011 | 413.125 | 422.5 | 0.1 | 0.2 | 7.6 | 424.5 | -2.0 |
| 30 | 1110 0010 | 428.750 | 449.1 | 0.9 | 0.0 | 26.6 | 440.4 | 0.7 |
| 31 | 1110 0001 | 444.375 | 459.6 | 0.0 | 0.1 | 10.4 | 455.3 | 3.2 |
| 32 | 1110 0000 | 460.000 | 472.5 | -0.1 | -0.2 | 13.0 | 472.3 | 0.3 |
| 35 | 1101 1111 | 475.625 | 488.5 | -0.2 | -0.2 | 10.9 | 488.2 | -4.7 |
| 36 | 1101 1110 | 491.250 | 504.8 | -0.1 | -0.9 | 21.3 | 504.1 | 0.7 |
| 37 | 1101 1101 | 506.875 | 521.9 | 0.0 | 0.2 | 14.6 | 520.0 | 1.4 |
| 38 | 1101 1100 | 522.500 | 532.7 | -0.0 | 0.0 | 11.2 | 526.0 | -3.3 |
| 39 | 1101 1011 | 538.125 | 550.9 | -0.1 | 0.0 | 18.2 | 551.9 | -1.0 |
| 40 | 1101 1010 | 553.750 | 574.7 | -1.0 | -0.9 | 23.7 | 567.8 | 6.9 |
| 41 | 1101 1001 | 569.375 | 588.8 | 0.0 | 0.0 | 14.1 | 583.7 | 5.1 |
| 42 | 1101 1000 | 585.000 | 602.6 | 0.3 | 0.3 | 13.8 | 599.6 | 3.0 |
| 43 | 1101 0111 | 600.625 | 611.8 | -0.1 | 0.1 | 9.1 | 615.6 | -3.8 |
| 44 | 1101 0110 | 616.250 | 635.4 | -1.4 | -1.3 | 23.6 | 631.5 | 3.9 |
| 45 | 1101 0101 | 631.875 | 649.9 | -0.2 | -0.1 | 14.5 | 647.4 | 2.5 |
| 46 | 1101 0100 | 647.500 | 667.0 | 0.6 | -0.1 | 17.1 | 663.3 | 3.7 |
| 47 | 1101 0011 | 663.125 | 678.9 | -0.3 | -0.4 | 11.9 | 679.3 | -6.4 |
| 48 | 1101 0010 | 678.750 | 704.2 | -0.0 | 0.9 | 25.2 | 695.2 | 9.0 |
| 49 | 1101 0001 | 694.375 | 715.5 | 1.0 | 1.1 | 11.3 | 711.1 | 4.4 |
| 50 | 1101 0000 | 710.000 | 728.9 | -0.0 | -0.5 | 13.4 | 727.0 | 1.8 |
| 53 | 1100 1111 | 735.625 | 738.5 | 0.1 | 0.2 | 9.6 | 743.0 | -4.5 |
| 54 | 1100 1110 | 751.250 | 759.3 | 0.9 | 0.9 | 20.8 | 768.9 | 0.4 |
| 55 | 1100 1101 | 766.875 | 776.6 | -0.3 | 0.1 | 17.0 | 774.8 | 1.8 |

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19-2 14 THERMATIC HOPPER MIX UNIT TEST MODEL... FLT. S/N 3 PAGE 396
1981/11/30 13:19:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-4 AND THRESHOLD TEST (COND= 2, SENSOR=14)

| THRESHOLD AND OUTPUT | | | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|----------------------|-----------|--------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| THRESHOLD
NUMBER | THRESHOLD | OUTPUT | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 | 1.00 | 772.500 | 790.2 | -0.0 | 0.0 | 13.6 | 790.7 | -0.5 |
| 53 | 1100 | 1011 | 788.125 | 805.5 | -0.0 | 0.1 | 15.3 | 806.6 | -1.2 |
| 54 | 1100 | 1010 | 803.750 | 828.7 | 1.0 | 0.9 | 24.2 | 822.6 | 6.2 |
| 55 | 1100 | 1001 | 819.375 | 843.4 | -0.0 | -0.1 | 14.7 | 838.5 | 4.9 |
| 56 | 1100 | 1000 | 831.000 | 863.5 | -1.1 | -1.3 | 20.1 | 854.4 | 9.1 |
| 57 | 1100 | 0111 | 850.625 | 866.3 | -0.1 | -0.1 | 2.8 | 870.3 | -4.0 |
| 58 | 1100 | 0110 | 866.250 | 888.7 | 1.1 | -0.0 | 22.4 | 886.3 | 2.5 |
| 59 | 1100 | 0101 | 881.875 | 903.9 | 0.1 | 0.1 | 15.2 | 902.2 | 1.8 |
| 60 | 1100 | 0100 | 897.500 | 925.5 | 0.0 | -1.2 | 21.6 | 918.1 | 7.4 |
| 61 | 1100 | 0011 | 913.125 | 932.5 | 0.4 | 0.4 | 6.9 | 934.0 | -1.6 |
| 62 | 1100 | 0010 | 928.750 | 952.3 | -0.0 | -1.0 | 26.9 | 949.9 | 9.4 |
| 63 | 1100 | 0001 | 944.375 | 970.4 | -0.8 | -0.8 | 11.0 | 965.9 | 4.5 |
| 64 | 1100 | 0000 | 960.000 | 977.3 | 0.6 | 0.8 | 6.9 | 981.8 | -4.4 |
| | | | | | | | | | |
| 65 | 1011 | 1111 | 975.625 | 994.5 | -0.3 | 0.1 | 12.1 | 992.7 | -3.2 |
| 66 | 1011 | 1110 | 991.250 | 1015.9 | -1.0 | -0.8 | 21.4 | 1013.6 | 2.2 |
| 67 | 1011 | 1101 | 1006.875 | 1032.1 | 0.0 | -0.2 | 16.3 | 1029.6 | 2.6 |
| 68 | 1011 | 1100 | 1022.500 | 1042.2 | -0.1 | 0.1 | 10.0 | 1045.5 | -3.3 |
| 69 | 1011 | 1011 | 1038.125 | 1061.4 | 0.0 | 0.2 | 19.2 | 1061.4 | 0.0 |
| 70 | 1011 | 1010 | 1053.750 | 1085.2 | -0.9 | -0.9 | 23.7 | 1077.3 | 7.8 |
| 71 | 1011 | 1001 | 1069.375 | 1093.8 | 0.1 | 0.1 | 13.6 | 1093.2 | 5.5 |
| 72 | 1011 | 1000 | 1085.000 | 1109.4 | 1.3 | -0.0 | 10.6 | 1109.2 | 0.2 |
| 73 | 1011 | 0111 | 1100.625 | 1121.7 | 0.3 | 0.2 | 12.3 | 1125.1 | -3.4 |
| 74 | 1011 | 0110 | 1116.250 | 1143.8 | 0.0 | 1.5 | 22.1 | 1141.0 | 2.9 |
| 75 | 1011 | 0101 | 1131.875 | 1159.4 | -0.1 | -0.1 | 15.6 | 1156.9 | 2.4 |
| 76 | 1011 | 0100 | 1147.500 | 1175.6 | -0.0 | -1.1 | 16.3 | 1172.9 | 2.8 |
| 77 | 1011 | 0011 | 1163.125 | 1188.6 | -0.4 | -0.2 | 13.0 | 1188.8 | -0.2 |
| 78 | 1011 | 0010 | 1178.750 | 1213.3 | 1.0 | 1.1 | 25.2 | 1204.7 | 9.1 |

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FACE 397

1981 11 30 11:12:31 PLANTY FULL PERFORMANCE @ 60.11 NT 1640.

3.5 11.15-11.20 THURSDAY 6:15 ST. ANDREW 2. SENSITIVITY 4.

23 30 81

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HS-252 THERMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/W 3 PAGE 398
 1981/11/30 13:19:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 4.4.1.1.1-8 AND THRESHOLD TEST (RAND= 2, SENSOR=14)

HAC
TEST
527

| THRESHOLD
DEGREE | AND
THRESHOLD | OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION | | | |
|---------------------|------------------|---------------------|------------------------|--|------------------------------------|---|------|--------|------|
| | | | NOMINAL | LOWER | UPPER | | | | |
| 101 | 1001 | 0111 | 1600.63 | 1628.3 | 0.1 | 0.2 | 11.5 | 1634.6 | -6.4 |
| 106 | 1001 | 0110 | 1616.25 | 1649.5 | 1.2 | 1.3 | 21.2 | 1650.5 | -1.0 |
| 107 | 1001 | 0101 | 1631.88 | 1666.0 | -0.3 | -0.0 | 16.5 | 1666.5 | -0.5 |
| 108 | 1001 | 0100 | 1647.50 | 1683.0 | -0.7 | -0.8 | 17.0 | 1682.4 | 0.4 |
| 109 | 1001 | 0011 | 1663.13 | 1695.0 | 0.2 | 0.0 | 12.0 | 1698.3 | -3.3 |
| 110 | 1001 | 0010 | 1678.75 | 1719.8 | 1.1 | 1.0 | 24.8 | 1714.2 | 5.6 |
| 111 | 1001 | 0001 | 1694.38 | 1732.2 | 0.0 | -0.0 | 12.4 | 1730.2 | 2.0 |
| 112 | 1001 | 0000 | 1710.00 | 1746.1 | 2.8 | 3.0 | 13.9 | 1746.1 | 0.0 |
| 113 | 1000 | 1111 | 1725.63 | 1754.3 | -0.1 | -0.1 | 8.2 | 1762.0 | -7.7 |
| 114 | 1000 | 1110 | 1741.25 | 1774.2 | 1.5 | -0.0 | 19.8 | 1777.9 | -3.8 |
| 115 | 1000 | 1101 | 1756.88 | 1791.7 | 0.2 | 0.2 | 17.5 | 1793.8 | -2.2 |
| 116 | 1000 | 1100 | 1772.50 | 1804.3 | -0.1 | -0.0 | 12.6 | 1809.8 | -5.5 |
| 117 | 1000 | 1011 | 1788.13 | 1821.1 | -0.3 | -0.3 | 16.7 | 1825.7 | -4.6 |
| 118 | 1000 | 1010 | 1803.75 | 1844.6 | 0.0 | -0.9 | 23.6 | 1841.6 | 3.0 |
| 119 | 1000 | 1001 | 1819.38 | 1858.3 | 0.0 | 0.1 | 13.6 | 1857.5 | 0.2 |
| 120 | 1000 | 1000 | 1835.00 | 1876.9 | 1.3 | 1.2 | 18.7 | 1873.5 | 3.5 |
| 121 | 1000 | 0111 | 1850.63 | 1881.3 | -0.1 | -0.0 | 4.3 | 1889.4 | -8.1 |
| 122 | 1000 | 0110 | 1866.25 | 1903.7 | -0.7 | -1.1 | 22.4 | 1905.3 | -1.5 |
| 123 | 1000 | 0101 | 1881.88 | 1918.5 | 0.2 | 0.0 | 14.0 | 1921.2 | -2.2 |
| 124 | 1000 | 0100 | 1897.50 | 1939.5 | 0.0 | 0.8 | 21.0 | 1937.1 | 2.4 |
| 125 | 1000 | 0011 | 1913.13 | 1947.6 | 0.0 | 0.1 | 8.1 | 1953.1 | -5.4 |
| 126 | 1000 | 0010 | 1928.75 | 1973.6 | -0.9 | -0.9 | 26.0 | 1969.0 | 4.6 |
| 127 | 1000 | 0001 | 1944.38 | 1984.8 | 0.1 | 0.1 | 11.2 | 1984.9 | -0.1 |
| 128 | 1000 | 0000 | 1960.00 | 1997.7 | 2.1 | 0.0 | 12.9 | 2000.8 | -3.2 |
| 129 | 0111 | 1111 | 1975.63 | 2010.1 | 0.3 | 0.4 | 12.4 | 2016.8 | -6.6 |
| 130 | 0111 | 1110 | 1991.25 | 2027.8 | -0.8 | 6.4 | 17.6 | 2032.7 | -4.9 |

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108-221. DYNAMIC MASTER AUX UNIT TEST MODEL 1. FLT. S/N 3 PAGE 399

1981 11/30 13:19:31 DYNAMIC FULL PERFORMANCE @ AMBIENT TEMP.

108-221. 11/30/81 13:19:31 DYNAMIC FULL PERFORMANCE @ AMBIENT TEMP. 108-221. 11/30/81 13:19:31 DYNAMIC FULL PERFORMANCE @ AMBIENT TEMP. 108-221. 11/30/81 13:19:31 DYNAMIC FULL PERFORMANCE @ AMBIENT TEMP.

HAC
TEST
S27

30 31

| THRESHOLD / AND OUTPUT
NOMINAL THRESHOLD | IDEAL
VALUE
(MU) | ANALOG INPUT VOLTAGE (MU)
TWO'S COMPLEMENT
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---|------------------------|--|------------------------------------|---|
| 131 | 0111 1101 | 2055.88 2051.5 -0.7 -0.7 | 23.7 | 2046.5 2.9 |
| 132 | 0111 1110 | 2072.50 2059.7 0.0 0.3 | 8.2 | 2054.5 -4.8 |
| 133 | 0111 1011 | 2038.13 2077.5 0.3 0.4 | 17.8 | 2069.5 -3.0 |
| 134 | 0111 1010 | 2073.25 2102.1 0.2 0.8 | 24.5 | 2094.4 5.7 |
| 135 | 0111 1001 | 2069.38 2114.4 -0.1 3.0 | 12.3 | 2112.3 2.1 |
| 136 | 0111 1000 | 2095.90 2122.4 -0.7 9.2 | 15.0 | 2133.2 1.2 |
| 137 | 0111 0111 | 2102.63 2137.4 0.6 0.0 | 7.9 | 2144.1 -6.8 |
| 138 | 0111 0110 | 2116.25 2156.8 0.7 0.6 | 19.4 | 2160.1 -3.3 |
| 139 | 0111 0101 | 2131.88 2178.5 -0.1 0.6 | 21.7 | 2176.0 2.5 |
| 140 | 0111 0100 | 2142.50 2192.6 -1.0 1.0 | 14.1 | 2191.9 0.7 |
| 141 | 0111 0011 | 2153.13 2205.0 -0.3 -0.4 | 12.5 | 2207.8 -2.8 |
| 142 | 0111 0010 | 2174.75 2232.2 1.2 0.0 | 27.1 | 2223.8 8.4 |
| 143 | 0111 0001 | 2191.38 2241.3 -0.2 -3.1 | 9.1 | 2239.7 1.6 |
| 144 | 0111 0000 | 2216.00 2249.4 -0.6 0.0 | 8.1 | 2255.6 -6.2 |
| 145 | 0110 1111 | 2225.63 2263.8 -0.4 -0.4 | 14.4 | 2271.5 -7.7 |
| 146 | 0110 1110 | 2231.25 2287.5 0.1 -1.3 | 23.7 | 2287.4 0.1 |
| 147 | 0110 1101 | 2255.88 2303.9 0.6 0.7 | 16.4 | 2303.4 0.5 |
| 148 | 0110 1100 | 2272.50 2315.3 0.0 0.0 | 12.4 | 2319.3 -3.0 |
| 149 | 0110 1011 | 2282.13 2336.9 -0.3 0.1 | 14.6 | 2335.2 -4.3 |
| 150 | 0110 1010 | 2293.25 2356.8 -1.7 -1.7 | 25.9 | 2351.1 5.7 |
| 151 | 0110 1001 | 2319.38 2367.5 -0.1 -0.1 | 10.7 | 2367.1 0.4 |
| 152 | 0110 1000 | 2332.00 2396.7 0.9 0.9 | 19.2 | 2383.0 3.7 |
| 153 | 0110 0111 | 2336.63 2390.6 -0.0 0.4 | 3.9 | 2398.9 -3.3 |
| 154 | 0110 0110 | 2345.25 2411.0 -0.7 -0.3 | 20.4 | 2414.8 -3.8 |
| 155 | 0110 0101 | 2361.28 2431.9 -0.5 -0.6 | 20.9 | 2430.8 1.2 |
| 156 | 0110 0100 | 2392.50 2449.5 0.8 0.0 | 17.5 | 2446.7 2.8 |
| 157 | 0110 0011 | 2413.13 2457.6 0.3 0.3 | 8.2 | 2462.6 -5.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 400

1981/11/30 13:19:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

THRESHOLD TEST (RAND= 2, SENSOR=14)

HAC
TEST
S27

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POTNT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2486.3 | -0.8 | -0.0 | 28.7 | 2478.5 | 7.8 |
| 159 | 0110 0001 | 2444.00 | 2494.0 | 0.3 | 0.3 | 7.6 | 2494.4 | -0.5 |
| 160 | 0110 0000 | 2460.00 | 2511.4 | -0.1 | -1.9 | 17.4 | 2510.4 | 1.0 |
| 161 | 0101 1111 | 2475.63 | 2517.1 | 0.3 | 0.3 | 5.7 | 2526.3 | -9.2 |
| 162 | 0101 1110 | 2491.25 | 2559.9 | 1.5 | 1.6 | 22.8 | 2542.2 | -2.3 |
| 163 | 0101 1101 | 2506.88 | 2558.1 | -1.0 | 0.0 | 18.2 | 2558.1 | -0.0 |
| 164 | 0101 1100 | 2522.50 | 2566.7 | -0.2 | -0.2 | 8.6 | 2574.1 | -7.4 |
| 165 | 0101 1011 | 2538.13 | 2584.2 | 0.4 | 0.0 | 17.5 | 2590.0 | -5.8 |
| 166 | 0101 1010 | 2553.75 | 2608.5 | 0.8 | 0.8 | 24.3 | 2605.9 | 2.6 |
| 167 | 0101 1001 | 2569.38 | 2625.3 | -0.1 | 0.7 | 16.7 | 2621.8 | 3.4 |
| 168 | 0101 1000 | 2585.00 | 2640.0 | -0.7 | -0.7 | 14.7 | 2637.7 | 2.2 |
| 169 | 0101 0111 | 2600.63 | 2644.7 | -0.4 | -0.4 | 4.7 | 2653.7 | -9.0 |
| 170 | 0101 0110 | 2616.25 | 2663.2 | 0.9 | 0.0 | 18.5 | 2669.6 | -6.4 |
| 171 | 0101 0101 | 2631.88 | 2685.0 | 0.7 | 0.7 | 21.8 | 2685.5 | -0.5 |
| 172 | 0101 0100 | 2647.50 | 2700.3 | -0.9 | -0.0 | 15.2 | 2701.4 | -1.2 |
| 173 | 0101 0011 | 2663.13 | 2711.8 | -0.5 | -0.4 | 11.5 | 2717.4 | -5.5 |
| 174 | 0101 0010 | 2678.75 | 2739.4 | 0.0 | -0.9 | 27.6 | 2733.3 | 6.1 |
| 175 | 0101 0001 | 2694.38 | 2748.2 | 0.0 | 0.1 | 8.8 | 2749.2 | -1.0 |
| 176 | 0101 0000 | 2710.00 | 2764.8 | 0.0 | 0.1 | 16.6 | 2765.1 | -0.3 |
| 177 | 0100 1111 | 2725.63 | 2770.7 | -0.1 | 0.0 | 5.9 | 2781.0 | -10.3 |
| 178 | 0100 1110 | 2741.25 | 2794.3 | -1.4 | -1.4 | 23.6 | 2797.0 | -2.6 |
| 179 | 0100 1101 | 2756.88 | 2810.5 | 0.7 | -0.0 | 16.2 | 2812.9 | -2.4 |
| 180 | 0100 1100 | 2772.50 | 2822.6 | 0.3 | 0.1 | 12.1 | 2828.8 | -6.2 |
| 181 | 0100 1011 | 2788.13 | 2837.3 | -0.0 | 0.5 | 14.7 | 2844.7 | -7.4 |
| 182 | 0100 1010 | 2803.75 | 2853.4 | -0.9 | -1.0 | 26.0 | 2860.7 | 2.7 |
| 183 | 0100 1001 | 2819.38 | 2874.7 | -0.2 | -0.1 | 11.4 | 2876.6 | -1.8 |

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PAGE 401

9.2" 1.14" 1.18" 1.07" THICKNESS OF 1.5" COINDE= 2. SENSOR=14;

HAC
TST
S27

NO 30 78

| THRESHOLD NO. | X/Y | OUTPUT THRESHOLD | DEAL VALUE (MW) | ANALOG INPUT VOL TAGE | FEEDBACK RATIO | DIFF 1:11 | THRESHOLD FROM PREV THRESHOLD | BEST FIT STRAIGHT LINE POINT | DEVIATION |
|---------------|------|------------------|-----------------|-----------------------|----------------|-----------|-------------------------------|------------------------------|-----------|
| 187 | 0100 | 1000 | 2885.00 | 2896.5 | 1.2 | 6.1 | 21.8 | 2892.5 | 4.0 |
| 188 | 0100 | 0111 | 2880.63 | 2897.8 | 0.4 | 6.4 | 1.3 | 2903.4 | -10.6 |
| 189 | 0100 | 0110 | 2886.25 | 2917.8 | -0.9 | -0.0 | 19.9 | 2924.4 | -6.6 |
| 189 | 0100 | 0101 | 2881.88 | 2939.0 | 0.8 | -0.8 | 21.3 | 2940.3 | -1.2 |
| 189 | 0100 | 0100 | 2892.56 | 2958.2 | -0.1 | -0.8 | 19.2 | 2955.2 | 2.0 |
| 187 | 0100 | 0011 | 2913.13 | 2964.0 | 0.3 | 6.4 | 6.6 | 2972.1 | -7.3 |
| 190 | 0100 | 0010 | 2924.25 | 2992.4 | 0.8 | 0.8 | 27.5 | 2988.0 | 4.3 |
| 191 | 0100 | 0001 | 2941.56 | 3001.7 | -0.1 | 0.0 | 9.4 | 3004.0 | -2.2 |
| 192 | 0100 | 0000 | 2950.00 | 3014.0 | -0.8 | -0.8 | 12.3 | 3012.9 | -0.9 |
| | | | | | | | | | |
| 193 | 0011 | 1111 | 3021.63 | 3026.0 | 0.4 | -0.0 | 11.9 | 3035.8 | -9.8 |
| 194 | 0011 | 1110 | 3021.25 | 3048.8 | 1.5 | 1.7 | 22.8 | 3051.7 | -3.0 |
| 195 | 0011 | 1101 | 3006.88 | 3066.9 | 0.0 | 0.8 | 18.1 | 3062.7 | -0.7 |
| 195 | 0011 | 1100 | 3012.50 | 3074.8 | -0.2 | 0.1 | 7.8 | 3083.6 | -8.8 |
| 197 | 0011 | 1011 | 3053.13 | 3094.0 | -0.7 | -0.7 | 19.2 | 3099.5 | -5.5 |
| 198 | 0011 | 1010 | 3054.25 | 3118.0 | 0.8 | 0.1 | 24.0 | 3115.4 | 2.6 |
| 199 | 0011 | 1001 | 3069.33 | 3130.9 | 0.1 | 0.1 | 12.9 | 3131.3 | -0.5 |
| 200 | 0011 | 1000 | 3082.00 | 3145.6 | -0.2 | 0.0 | 14.7 | 3147.3 | -1.7 |
| 201 | 0011 | 0111 | 3100.63 | 3154.5 | -0.8 | -0.8 | 8.9 | 3163.2 | -8.7 |
| 202 | 0011 | 0110 | 3116.25 | 3180.2 | -0.0 | -1.2 | 25.7 | 3179.1 | 1.1 |
| 203 | 0011 | 0101 | 3131.88 | 3195.5 | 0.7 | 0.7 | 15.2 | 3195.0 | 0.4 |
| 204 | 0011 | 0100 | 3142.50 | 3207.8 | 1.0 | 1.2 | 12.3 | 3211.0 | -3.2 |
| 205 | 0011 | 0011 | 3162.13 | 3222.2 | -0.6 | 0.5 | 14.3 | 3226.9 | -4.7 |
| 206 | 0011 | 0010 | 3178.25 | 3250.5 | -1.5 | -1.3 | 28.4 | 3242.8 | 7.7 |
| 207 | 0011 | 0001 | 3194.56 | 3258.8 | -0.1 | 0.0 | 8.3 | 3258.7 | 0.1 |
| 208 | 0011 | 0000 | 3210.00 | 3268.9 | 0.7 | 0.5 | 10.0 | 3273.2 | -5.8 |
| | | | | | | | | | |
| 209 | 0010 | 1111 | 3220.63 | 3281.2 | -0.1 | 0.3 | 12.4 | 3290.6 | -9.4 |

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302

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THERMATIC METER KUX UNIT TEST MODEL 111, S/N 3 PAGE 403
 1981.12.30 13:19:00 TENDENCY FULL PERFORMANCE 2 ACQUANT TEST.
 01.11.12.15-11.12.15 THRESHOLD TEST COMMAND=26 SENSOR=14

HAC
 TEST
 S27

REV 30

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | TENDENCY
VALUE
(KV) | ANALOG TENDENCY VOLTAGE (KV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|---------------------------|------------------------------|--------|-------|------------------------------------|------------------------|-------------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 232 | 0001 0011 | 3663.13 | 3734.5 | -0.0 | 0.5 | 17.1 | 3736.4 -1.9 |
| 233 | 0001 0010 | 3678.75 | 3763.4 | -1.6 | 1.4 | 23.9 | 3752.3 11.1 |
| 235 | 0001 0001 | 3694.38 | 3772.7 | -0.2 | 0.1 | 9.2 | 3768.3 4.4 |
| 241 | 0001 0000 | 3710.00 | 3797.2 | -1.5 | -1.3 | 19.5 | 3734.2 8.0 |
| 243 | 0000 1111 | 3725.63 | 3795.8 | 0.1 | 0.3 | 3.6 | 3800.1 -4.3 |
| 243 | 0000 1110 | 3731.25 | 3819.7 | -1.4 | 0.0 | 23.9 | 3816.0 3.7 |
| 243 | 0000 1101 | 3736.88 | 3836.6 | -1.1 | -0.9 | 16.9 | 3811.9 4.7 |
| 244 | 0000 1100 | 3742.50 | 3847.4 | 0.0 | 0.0 | 10.7 | 3847.9 -0.5 |
| 245 | 0000 1011 | 3750.13 | 3863.4 | 0.1 | 0.1 | 16.0 | 3863.8 -0.4 |
| 245 | 0000 1010 | 3755.75 | 3887.7 | 1.7 | 1.9 | 24.3 | 3879.7 7.9 |
| 247 | 0000 1001 | 3769.38 | 3901.4 | -0.4 | -0.3 | 13.7 | 3895.6 5.8 |
| 253 | 0000 1000 | 3831.00 | 3924.8 | -1.3 | 1.3 | 23.4 | 3911.6 13.2 |
| 255 | 0000 0111 | 3850.63 | 3925.3 | 0.3 | 0.0 | 0.6 | 3927.5 -2.1 |
| 258 | 0000 0110 | 3866.25 | 3950.0 | -5.4 | 1.1 | 24.6 | 3947.4 6.6 |
| 258 | 0000 0101 | 3871.88 | 3966.1 | -5.1 | 0.7 | 16.1 | 3959.3 6.8 |
| 257 | 0000 0100 | 3877.50 | 3981.6 | -1.1 | 1.1 | 19.1 | 3925.2 10.4 |
| 258 | 0000 0011 | 3913.13 | 3993.5 | -0.9 | -0.9 | 7.0 | 3991.2 2.3 |
| 258 | 0000 0010 | 3918.75 | 4020.6 | 0.5 | 0.8 | 27.1 | 4007.1 13.5 |
| 258 | 0000 0001 | 3924.38 | 4030.6 | 0.1 | 0.1 | 10.0 | 4023.0 7.6 |

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IS-236 THERMATIC MATTER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 404
 1981/11/30 13:25:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 34.74 14.5-14 AND THRESHOLD TEST COND= 2, SENSOR=15)
 S U M M A R Y

HAC
 TEST
 527

BY 30 W

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 % THRESH INC = 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

LINE FIT STRAIGHT LINE IS: $Y = -15.928X - 34.4MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.942%

OFFSET IS: -34.6MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998230$

AVERAGE INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.599MV RECENT RMS ERROR <= 7.412MV

RECENT THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---|-------------|----------|---------|-------------|--------------------|
| 27.9MV | 13 | 16.001MV | 1.9MV | 16 | 5.624MV |
| NUMBER OF POINTS AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 2.0MV | 17 | -0.124MV | -4.5MV | 170 | .636MV |
| NUMBER OF POINTS AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 1.1MV | 25 | -0.072MV | 1.5MV | 210 | .466MV |

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 OF POOR QUALITY

TEST PASSED

1-2734 THERMATIC MOTOR MIX UNIT TEST MODEL ... S/N 3 PAGE 407

11/11/73 13:26:07 THERMATIC MIX UNIT PERFORMANCE @ AMBIENT TEMP.

1-2734-54 1-2734-54 1-2734-54 1-2734-54 1-2734-54 1-2734-54 1-2734-54 1-2734-54 1-2734-54 1-2734-54

IIAC
TFST
527

| THERMATIC MIX UNIT OUTPUT | | | ANALOG INPUT VOLTAGE (MV) | | | INCREASE FROM PREVIOUS THRESHOLD | | | BEST FIT STRAIGHT LINE | |
|---------------------------|----------------|--------|---------------------------|---------|-------|----------------------------------|-----------|--------|------------------------|--|
| THRESHOLD NUMBER | 3/25 THRESHOLD | OUTPUT | IDEAL VALUE (MV) | NOMINAL | LOWER | HIGHER | THRESHOLD | POINT | DEVIATION | |
| 52 | 1100 | 1100 | 772.500 | 794.4 | -0.2 | -0.3 | 13.9 | 793.7 | 0.7 | |
| 53 | 1100 | 1011 | 780.125 | 808.0 | 0.2 | 0.0 | 13.6 | 809.6 | -1.6 | |
| 54 | 1100 | 1010 | 803.750 | 829.2 | 0.4 | 0.4 | 21.9 | 825.5 | 4.3 | |
| 55 | 1100 | 1001 | 819.375 | 846.7 | -0.1 | 0.4 | 14.8 | 841.5 | 5.2 | |
| 56 | 1100 | 1000 | 835.000 | 865.8 | 0.7 | -0.5 | 19.1 | 857.4 | 8.4 | |
| 57 | 1100 | 0111 | 850.625 | 869.1 | -0.1 | -0.3 | 3.3 | 873.3 | -4.2 | |
| 58 | 1100 | 0110 | 876.250 | 890.2 | 0.5 | 0.2 | 21.8 | 869.3 | 1.7 | |
| 59 | 1100 | 0101 | 891.875 | 906.9 | 0.4 | 0.3 | 14.0 | 905.2 | 1.7 | |
| 60 | 1100 | 0100 | 897.500 | 927.9 | -0.4 | -0.1 | 20.9 | 921.1 | 6.7 | |
| 61 | 1100 | 0011 | 913.125 | 935.3 | -0.3 | -1.4 | 2.5 | 937.0 | -1.7 | |
| 62 | 1100 | 0010 | 928.750 | 960.2 | -0.0 | 0.5 | 24.8 | 973.0 | 2.2 | |
| 63 | 1100 | 0001 | 944.375 | 974.1 | 0.3 | 0.4 | 14.0 | 961.9 | 5.3 | |
| 64 | 1100 | 0000 | 960.000 | 981.5 | -0.1 | 0.9 | 2.4 | 984.8 | -3.3 | |
| 65 | 1011 | 1111 | 975.625 | 997.9 | -0.4 | -0.4 | 16.4 | 1000.7 | -2.8 | |
| 66 | 1011 | 1110 | 991.250 | 1016.1 | -0.7 | -1.1 | 18.2 | 1016.7 | -0.6 | |
| 67 | 1011 | 1101 | 1006.875 | 1036.6 | 0.5 | 0.2 | 20.5 | 1032.6 | 4.0 | |
| 68 | 1011 | 1100 | 1022.500 | 1048.9 | 0.3 | 0.1 | 12.3 | 1048.5 | 0.4 | |
| 69 | 1011 | 1011 | 1038.125 | 1053.8 | -0.1 | 0.2 | 14.9 | 1064.5 | -0.7 | |
| 70 | 1011 | 1010 | 1053.750 | 1085.9 | -0.5 | -0.6 | 22.1 | 1080.4 | 5.5 | |
| 71 | 1011 | 1001 | 1069.375 | 1103.5 | -0.9 | -0.5 | 12.6 | 1094.3 | 7.1 | |
| 72 | 1011 | 1000 | 1085.000 | 1132.7 | 0.6 | 0.6 | 6.3 | 1112.2 | -2.5 | |
| 73 | 1011 | 0111 | 1100.625 | 1124.7 | 0.7 | 3.1 | 15.0 | 1128.2 | -3.4 | |
| 74 | 1011 | 0110 | 1116.250 | 1146.1 | -1.0 | -0.3 | 21.4 | 1144.1 | 2.0 | |
| 75 | 1011 | 0101 | 1131.875 | 1164.4 | -0.4 | -0.3 | 18.2 | 1160.0 | 4.3 | |
| 76 | 1011 | 0100 | 1147.500 | 1178.5 | -0.0 | -0.3 | 14.2 | 1176.0 | 2.5 | |
| 77 | 1011 | 0011 | 1163.125 | 1190.6 | 0.3 | 0.2 | 12.1 | 1191.9 | -1.3 | |
| 78 | 1011 | 0010 | 1178.750 | 1214.9 | 0.0 | 0.7 | 24.3 | 1207.8 | 7.1 | |

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5-236 THERMATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 408

981/11/10 13124107 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

15.0.5-11 AND THRESHOLD TEST (PAID= 2, SENSOR=15)

HAC
TEST
S27

REV 30 71

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | | |
|--|------------------------|---------------------------|--------|-------|------------------------------------|------------------------|-----------|------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION | |
| 79 | 1011 0001 | 1194.38 | 1230.7 | -0.5 | -0.5 | 15.8 | 1223.7 | 7.0 |
| 80 | 1011 0000 | 1210.00 | 1239.5 | -0.4 | -0.3 | 8.8 | 1239.7 | -0.1 |
| 81 | 1010 1111 | 1225.63 | 1251.0 | 0.3 | -0.0 | 11.4 | 1255.6 | -4.6 |
| 82 | 1010 1110 | 1241.25 | 1268.9 | 0.8 | 0.6 | 17.9 | 1271.5 | -2.6 |
| 85 | 1010 1101 | 1256.88 | 1289.8 | -0.1 | 0.4 | 20.9 | 1287.5 | 2.4 |
| 84 | 1010 1100 | 1272.50 | 1302.4 | -0.2 | -0.3 | 12.6 | 1303.4 | -1.0 |
| 85 | 1010 1011 | 1288.13 | 1317.2 | 0.0 | -0.4 | 14.7 | 1319.3 | -2.2 |
| 86 | 1010 1010 | 1303.75 | 1328.6 | 1.1 | 1.1 | 21.4 | 1335.2 | 3.3 |
| 87 | 1010 1001 | 1319.38 | 1355.9 | 0.4 | 0.4 | 17.3 | 1351.2 | 4.7 |
| 88 | 1010 1000 | 1335.00 | 1372.2 | -0.7 | -0.1 | 16.3 | 1367.1 | 5.1 |
| 89 | 1010 0111 | 1350.63 | 1378.0 | -0.2 | -0.4 | 5.8 | 1383.0 | -5.0 |
| 90 | 1010 0110 | 1366.25 | 1399.9 | -0.1 | -1.0 | 21.9 | 1399.0 | 1.0 |
| 91 | 1010 0101 | 1381.88 | 1416.7 | -0.3 | -0.2 | 16.8 | 1414.9 | 1.8 |
| 92 | 1010 0100 | 1397.50 | 1435.5 | 0.0 | -0.1 | 18.8 | 1430.8 | 4.7 |
| 93 | 1010 0011 | 1413.13 | 1443.7 | -0.2 | -0.2 | 8.2 | 1446.7 | -3.0 |
| 94 | 1010 0010 | 1428.75 | 1468.9 | -0.5 | -0.5 | 25.2 | 1462.7 | 6.2 |
| 95 | 1010 0001 | 1444.38 | 1483.0 | 0.4 | -0.0 | 14.1 | 1478.6 | 4.4 |
| 96 | 1010 0000 | 1460.00 | 1497.4 | 0.4 | 0.4 | 14.3 | 1494.5 | 2.8 |
| 97 | 1001 1111 | 1475.63 | 1504.3 | -0.1 | 0.5 | 6.9 | 1510.5 | -4.2 |
| 98 | 1001 1110 | 1491.25 | 1522.0 | -0.7 | -1.1 | 17.7 | 1526.4 | -4.4 |
| 99 | 1001 1101 | 1506.88 | 1543.7 | -0.1 | -0.6 | 21.7 | 1542.3 | 1.4 |
| 100 | 1001 1100 | 1522.50 | 1555.9 | -2.5 | 0.0 | 12.2 | 1558.2 | -2.4 |
| 101 | 1001 1011 | 1538.13 | 1570.6 | 0.1 | 0.1 | 14.7 | 1574.2 | -3.5 |
| 102 | 1001 1010 | 1553.75 | 1592.2 | -0.5 | -0.0 | 21.6 | 1590.1 | 2.1 |
| 103 | 1001 1001 | 1569.38 | 1609.9 | -0.5 | -0.4 | 17.6 | 1606.0 | 3.8 |
| 104 | 1001 1000 | 1585.00 | 1620.0 | 0.0 | -0.7 | 10.1 | 1622.0 | -2.0 |

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PAGE 409

11.11-4 020 TRREF1000.13 14 577 (HAND:= 2, SENSOR=15)

NOV 30 1981

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-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 410

81/11/80 13:26:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5-4.5-A AND THRESHOLD TEST (RAND= 2, SENSOR=15)



IN 30 M

| THRESHOLD AND OUTPUT
NUMBER | THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------------------|-----------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2054.2 | -0.6 | -0.6 | 17.7 | 2052.0 | 2.2 |
| 132 | 0111 1100 | 2022.50 | 2066.3 | -0.8 | -0.8 | 12.1 | 2068.0 | -1.6 |
| 133 | 0111 1011 | 2038.13 | 2079.8 | 0.3 | 0.2 | 13.5 | 2083.9 | -4.1 |
| 134 | 0111 1010 | 2053.75 | 2103.7 | 0.0 | 0.5 | 23.8 | 2099.8 | 3.8 |
| 135 | 0111 1001 | 2069.38 | 2122.1 | -0.9 | -0.9 | 10.4 | 2115.7 | 6.4 |
| 136 | 0111 1000 | 2085.00 | 2126.5 | -0.6 | -0.6 | 4.4 | 2131.7 | -5.2 |
| 137 | 0111 0111 | 2100.63 | 2141.1 | 0.1 | -0.1 | 14.6 | 2147.6 | -6.5 |
| 138 | 0111 0110 | 2116.25 | 2159.2 | 0.4 | 0.7 | 18.1 | 2163.5 | -4.3 |
| 139 | 0111 0101 | 2131.88 | 2181.6 | -0.1 | 0.3 | 22.3 | 2179.5 | 2.1 |
| 140 | 0111 0100 | 2147.50 | 2197.3 | -0.9 | -0.4 | 15.8 | 2195.4 | 2.0 |
| 141 | 0111 0011 | 2163.13 | 2207.1 | -0.1 | -0.3 | 9.8 | 2211.3 | -4.2 |
| 142 | 0111 0010 | 2178.75 | 2233.3 | 0.6 | 0.6 | 26.2 | 2227.2 | 6.1 |
| 143 | 0111 0001 | 2194.38 | 2249.0 | 0.4 | 0.4 | 15.6 | 2243.2 | 5.8 |
| 144 | 0111 0000 | 2210.00 | 2257.3 | -4.4 | -0.1 | 8.3 | 2259.1 | -1.8 |
| 145 | 0110 1111 | 2225.63 | 2267.7 | -0.4 | -0.4 | 18.4 | 2275.0 | -7.3 |
| 146 | 0110 1110 | 2241.25 | 2289.3 | -0.8 | -0.5 | 21.5 | 2291.0 | -1.7 |
| 147 | 0110 1101 | 2256.88 | 2306.7 | 0.4 | 0.0 | 17.4 | 2306.9 | -0.2 |
| 148 | 0110 1100 | 2272.50 | 2320.2 | -0.8 | 0.3 | 13.5 | 2322.8 | -2.6 |
| 149 | 0110 1011 | 2288.13 | 2333.5 | -0.4 | -0.4 | 13.3 | 2338.7 | -0.7 |
| 150 | 0110 1010 | 2303.75 | 2358.1 | -0.7 | -0.8 | 24.6 | 2354.7 | 3.5 |
| 151 | 0110 1001 | 2319.38 | 2374.8 | 0.4 | -0.2 | 16.7 | 2370.6 | 4.2 |
| 152 | 0110 1000 | 2335.00 | 2389.4 | 0.6 | 0.6 | 11.4 | 2386.5 | 2.9 |
| 153 | 0110 0111 | 2350.63 | 2394.4 | -0.1 | -0.1 | 4.9 | 2402.4 | -8.1 |
| 154 | 0110 0110 | 2366.25 | 2413.4 | -0.7 | -0.6 | 19.0 | 2418.4 | -5.0 |
| 155 | 0110 0101 | 2381.88 | 2435.2 | -0.8 | -0.5 | 21.9 | 2434.3 | 0.9 |
| 156 | 0110 0100 | 2397.50 | 2454.2 | 0.5 | 0.5 | 18.9 | 2450.2 | 3.9 |
| 157 | 0110 0011 | 2413.13 | 2460.0 | 0.1 | 0.1 | 5.8 | 2466.2 | -6.2 |

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116 AUTOMATIC METER BOX UNIT TEST MODEL 11, FILE 5/21/3 PAGE 411

7/11/76 13:26:07 FINALLY THE PERFORMANCE PARAMETER TEST.

7/11/76 13:26:07 FINALLY THE PERFORMANCE PARAMETER TEST. COND= 2. SENS=1.7.



| SERIAL NO | UNIT IDENTIFICATION | TOTAL | ANALOG INPUT VOLTAGE | | (NO) | INCREASE | BEST FIT STRAIGHT LINE | |
|-----------|---------------------|------------|----------------------|--------------------|-----------|---------------------|------------------------|-----------|
| | | VALUE (MV) | NOMINAL | LEVELS RATIO-TOLER | 1:1 OFFER | FROM PREV THRESHOLD | POINT | DEVIATION |
| 38 | 0110 0010 | 2482.25 | 2487.3 | -0.5 | 5.0 | 27.5 | 2482.1 | 5.4 |
| 39 | 0110 0001 | 2444.38 | 2402.3 | -0.5 | -1.4 | 14.8 | 2498.0 | 4.3 |
| 40 | 1110 0000 | 2450.50 | 2514.1 | 0.4 | 3.2 | 11.7 | 2513.9 | 0.1 |
| 41 | 0101 1111 | 2425.63 | 2520.9 | 0.5 | 0.5 | 6.9 | 2529.9 | -8.9 |
| 42 | 0101 1110 | 2491.55 | 2542.8 | 0.0 | 3.6 | 21.9 | 2545.8 | -3.0 |
| 43 | 0101 1101 | 2562.88 | 2560.9 | -0.6 | 0.7 | 10.1 | 2561.7 | -0.8 |
| 44 | 0101 1100 | 2522.50 | 2525.7 | -0.5 | 5.5 | 14.8 | 2527.7 | -1.9 |
| 45 | 0101 1011 | 2536.13 | 2587.3 | 0.1 | 0.1 | 11.6 | 2593.6 | -6.3 |
| 46 | 0101 1010 | 2573.25 | 2610.4 | 0.5 | 3.5 | 23.1 | 2609.5 | 0.9 |
| 47 | 0101 1001 | 2539.38 | 2628.9 | -0.4 | 0.0 | 18.5 | 2625.4 | 3.4 |
| 48 | 0101 1000 | 2535.90 | 2636.6 | -0.3 | 0.8 | 7.8 | 2641.4 | -4.7 |
| 49 | 0101 0111 | 2592.69 | 2646.6 | 0.0 | -0.4 | 11.9 | 2657.3 | -8.7 |
| 50 | 0101 0110 | 2516.25 | 2671.0 | -4.5 | 6.5 | 22.4 | 2673.2 | -2.2 |
| 51 | 0101 0101 | 2591.98 | 2688.3 | 0.5 | 0.4 | 17.3 | 2689.2 | -0.8 |
| 52 | 0101 0100 | 2547.50 | 2704.9 | -0.5 | -0.2 | 16.1 | 2705.1 | -0.2 |
| 53 | 0101 0011 | 2573.13 | 2714.4 | -0.4 | -1.4 | 9.4 | 2721.0 | -6.6 |
| 54 | 0101 0010 | 2678.25 | 2740.1 | 0.5 | -0.0 | 20.7 | 2736.9 | 1.2 |
| 55 | 1101 0001 | 2594.38 | 2755.8 | 0.2 | 1.3 | 15.6 | 2757.9 | 2.9 |
| 56 | 1101 0000 | 2715.00 | 2769.5 | -0.1 | 4.3 | 13.8 | 2768.8 | 0.7 |
| 57 | 0100 1111 | 2725.63 | 2774.8 | -0.4 | -0.6 | 1.5 | 2784.7 | -9.9 |
| 58 | 1100 1110 | 2771.25 | 2796.5 | -0.3 | -1.7 | 21.6 | 2800.7 | -4.2 |
| 59 | 0100 1101 | 2736.88 | 2813.6 | 0.5 | -0.2 | 17.2 | 2816.6 | -3.0 |
| 60 | 0100 1100 | 2722.50 | 2827.4 | 0.2 | 0.0 | 13.8 | 2832.5 | -0.1 |
| 61 | 0100 1011 | 2738.13 | 2840.9 | -0.4 | -0.1 | 13.5 | 2848.4 | -7.5 |
| 62 | 0100 1010 | 2813.25 | 2865.1 | -0.7 | 0.6 | 24.2 | 2864.4 | 0.7 |
| 63 | 0100 1001 | 2819.38 | 2882.1 | -0.0 | -0.3 | 17.0 | 2880.3 | 1.8 |

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6-236 THEMATIC DAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 412

01/11/70 13:26:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

LEVEL-THRESHOLD AND THRESHOLD TEST : AND= 2, SENSOR=15

HAC
TEST
S27

| THRESHOLD AND OUTPUT
NUMBER THRESHOLD | TOTAL
VALUE
(KV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 0100 1000 | 2835.00 | 2899.7 | 0.5 | 0.6 | 17.6 | 2896.2 | 3.5 |
| 185 0100 0111 | 2850.63 | 2901.6 | 0.3 | 0.2 | 1.9 | 2912.2 | -10.5 |
| 186 0100 0110 | 2866.25 | 2923.9 | -1.0 | -0.2 | 22.3 | 2928.1 | -4.2 |
| 187 0100 0101 | 2881.88 | 2942.2 | -0.4 | -0.6 | 18.3 | 2944.0 | -1.8 |
| 188 0100 0100 | 2897.50 | 2962.5 | 0.7 | -0.1 | 20.3 | 2959.9 | 2.5 |
| 189 0100 0011 | 2913.13 | 2967.5 | 0.3 | 0.4 | 5.0 | 2975.9 | -8.4 |
| 190 0100 0010 | 2928.75 | 2994.1 | -0.1 | 0.5 | 26.7 | 2991.8 | 2.3 |
| 191 0100 0001 | 2944.38 | 3009.3 | -0.6 | -0.5 | 15.2 | 3007.7 | 1.6 |
| 192 0100 0000 | 2960.00 | 3018.3 | -0.1 | -0.5 | 9.0 | 3023.7 | -5.4 |
| 193 0011 1111 | 2975.63 | 3030.2 | 0.5 | -0.1 | 11.9 | 3039.6 | -9.4 |
| 194 0011 1110 | 2991.25 | 3051.9 | 0.6 | 0.6 | 21.7 | 3055.5 | -3.6 |
| 195 0011 1101 | 3006.88 | 3070.5 | -0.6 | -0.1 | 18.6 | 3071.4 | -1.0 |
| 196 0011 1100 | 3022.50 | 3081.7 | -0.1 | -0.6 | 11.1 | 3087.4 | -5.6 |
| 197 0011 1011 | 3038.13 | 3097.4 | 0.0 | -0.0 | 15.7 | 3103.3 | -5.9 |
| 198 0011 1010 | 3053.75 | 3120.0 | 0.6 | 0.6 | 22.6 | 3119.2 | 0.8 |
| 199 0011 1001 | 3069.38 | 3138.6 | 0.5 | 0.5 | 18.5 | 3135.2 | 3.4 |
| 200 0011 1000 | 3085.00 | 3142.8 | -0.7 | 0.0 | 4.2 | 3151.1 | -8.2 |
| 201 0011 0111 | 3100.63 | 3158.7 | -0.8 | -0.8 | 15.8 | 3167.0 | 8.4 |
| 202 0011 0110 | 3116.25 | 3182.1 | 0.6 | 0.0 | 23.4 | 3182.9 | -0.2 |
| 203 0011 0101 | 3131.88 | 3198.8 | 0.5 | 0.5 | 16.7 | 3198.9 | -0.1 |
| 204 0011 0100 | 3147.50 | 3213.6 | -0.1 | 0.3 | 14.9 | 3214.8 | -1.2 |
| 205 0011 0011 | 3163.13 | 3224.8 | -0.2 | -0.3 | 11.2 | 3230.7 | -0.9 |
| 206 0011 0010 | 3178.75 | 3251.8 | -1.1 | -1.3 | 26.9 | 3246.7 | 5.1 |
| 207 0011 0001 | 3194.38 | 3266.7 | 0.1 | -0.0 | 14.9 | 3262.6 | 4.1 |
| 208 0011 0000 | 3210.00 | 3278.4 | 0.2 | 0.2 | 11.7 | 3278.5 | -0.1 |
| 209 0010 1111 | 3225.63 | 3285.8 | -0.7 | -0.1 | 7.4 | 3294.4 | -8.6 |

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4236 DEMATIC MAPPER BUY UNIT TEST MODEL .. FLT. S/N 3 PAGE 414

01/11/80 13:26:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

15.4.5-14 AND THRESHOLD TEST (RAND= 2, SENSOR=15)



| THRESHOLD AND OUTPUT | | DIGITAL | ANALOG INPUT VOLTAGE (MV) | | | INCREASE | BEST FIT STRAIGHT LINE | |
|----------------------|-----------|---------|---------------------------|-------------------|-------------------|-----------|------------------------|-----------|
| USER | THRESHOLD | VALUE | NOMINAL | LEVELS RATIO- 1:1 | LEVELS RATIO- 1:1 | FROM PREV | POINT | DEVIATION |
| | | (BV) | | LOWER | UPPER | THRESHOLD | | |
| 237 | 0001 0011 | 3663.13 | 3738.6 | -0.5 | -0.1 | 11.0 | 3740.4 | -1.8 |
| 238 | 0001 0010 | 3678.75 | 3764.8 | -0.8 | -0.7 | 26.2 | 3756.4 | 8.5 |
| 239 | 0001 0001 | 3694.38 | 3780.5 | -0.2 | -0.4 | 15.7 | 3772.3 | 8.2 |
| 240 | 0001 0000 | 3710.00 | 3796.7 | 0.3 | 0.4 | 16.2 | 3788.2 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3799.4 | 0.4 | 0.4 | 2.7 | 3804.1 | -4.7 |
| 242 | 0000 1110 | 3741.25 | 3822.3 | -1.0 | -0.1 | 22.9 | 3820.1 | 2.1 |
| 243 | 0000 1101 | 3756.88 | 3839.2 | -0.0 | -0.3 | 16.8 | 3836.0 | 3.2 |
| 244 | 0000 1100 | 3772.50 | 3857.1 | 0.2 | -0.1 | 12.9 | 3851.9 | 0.2 |
| 245 | 0000 1011 | 3788.13 | 3867.1 | 0.3 | 0.3 | 15.0 | 3867.9 | -0.8 |
| 246 | 0000 1010 | 3803.75 | 3890.8 | -0.1 | 0.6 | 23.7 | 3883.8 | 7.0 |
| 247 | 0000 1001 | 3819.38 | 3908.6 | -0.5 | -0.5 | 17.8 | 3899.7 | 8.9 |
| 248 | 0000 1000 | 3835.00 | 3926.6 | -0.7 | -0.6 | 17.9 | 3915.6 | 10.9 |
| 249 | 0000 0111 | 3850.63 | 3929.0 | 0.3 | -0.1 | 2.4 | 3931.6 | -2.6 |
| 250 | 0000 0110 | 3866.25 | 3952.3 | 0.0 | 0.1 | 24.3 | 3947.5 | 4.7 |
| 251 | 0000 0101 | 3881.88 | 3969.8 | -1.5 | 0.0 | 17.5 | 3963.4 | 6.4 |
| 252 | 0000 0100 | 3897.50 | 3990.8 | -0.4 | -0.4 | 21.0 | 3979.4 | 11.4 |
| 253 | 0000 0011 | 3913.13 | 3996.6 | -0.1 | -0.3 | 5.8 | 3995.3 | 1.1 |
| 254 | 0000 0010 | 3928.75 | 4022.6 | 0.4 | 0.5 | 26.0 | 4011.2 | 11.4 |
| 255 | 0000 0001 | 3944.38 | 4038.0 | 0.3 | 0.4 | 15.4 | 4027.1 | 10.9 |

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254 THETAC MAPPER MUX UNIT TEST MODEL.. FLI. S/N 3 PAGE 416

1/11/80 13:32:43 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

11.11.11-11 1111 THRESHOLD TEST (HAND= 2, SENSOR=14)

HAC
TEST
527

44 30 81

| SHOLD AND OUTPUT
MULT. THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO 1:1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|-------------------------------------|------------------------|--|------------------------------------|---|
|-------------------------------------|------------------------|--|------------------------------------|---|

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -31.4 | -0.2 | 0.1 | | -27.9 | -8.6 |
| 2 | 1111 1110 | -8.750 | -14.0 | 0.2 | 0.2 | 17.5 | -6.9 | -7.1 |
| 3 | 1111 1101 | 6.875 | 7.2 | -0.1 | 0.1 | 21.2 | 9.0 | -1.8 |
| 4 | 1111 1100 | 22.500 | 21.3 | -1.3 | -1.7 | 14.1 | 24.9 | -3.7 |
| 5 | 1111 1011 | 38.125 | 36.0 | -0.1 | -0.0 | 14.7 | 40.9 | -4.9 |
| 6 | 1111 1010 | 53.750 | 59.8 | 0.1 | -0.0 | 23.8 | 56.8 | 3.0 |
| 7 | 1111 1001 | 69.375 | 74.4 | -0.3 | -0.0 | 14.6 | 72.7 | 1.6 |
| 8 | 1111 1000 | 85.000 | 86.3 | -0.1 | 0.0 | 12.0 | 88.7 | -2.3 |
| 9 | 1111 0111 | 100.625 | 97.5 | -0.1 | 0.0 | 11.2 | 104.6 | -7.1 |
| 10 | 1111 0110 | 116.250 | 117.7 | -0.1 | -0.3 | 20.2 | 120.5 | -2.8 |
| 11 | 1111 0101 | 131.875 | 136.1 | -0.1 | 0.0 | 18.4 | 136.5 | -0.4 |
| 12 | 1111 0100 | 147.500 | 153.9 | 0.0 | 0.1 | 17.8 | 152.4 | 1.5 |
| 13 | 1111 0011 | 163.125 | 164.8 | -0.1 | -0.0 | 10.8 | 168.4 | -3.6 |
| 14 | 1111 0010 | 178.750 | 191.3 | -0.4 | -0.3 | 26.5 | 184.3 | 7.0 |
| 15 | 1111 0001 | 194.375 | 202.5 | -0.0 | 0.0 | 11.2 | 200.2 | 2.3 |
| 16 | 1111 0000 | 210.000 | 211.4 | 0.5 | 0.6 | 8.9 | 216.2 | -4.7 |
| 17 | 1110 1111 | 225.625 | 225.4 | -0.1 | 0.0 | 14.0 | 232.1 | -6.7 |
| 18 | 1110 1110 | 241.250 | 243.3 | -0.3 | -0.2 | 17.9 | 248.0 | -4.7 |
| 19 | 1110 1101 | 256.875 | 264.0 | -0.1 | -0.0 | 20.6 | 264.0 | 0.0 |
| 20 | 1110 1100 | 272.500 | 279.6 | 0.2 | 0.0 | 15.6 | 279.9 | -0.3 |
| 21 | 1110 1011 | 288.125 | 292.6 | -0.1 | 0.0 | 13.0 | 295.8 | -3.2 |
| 22 | 1110 1010 | 303.750 | 316.7 | -0.3 | -0.0 | 24.1 | 311.8 | 5.0 |
| 23 | 1110 1001 | 319.375 | 330.9 | 0.0 | 0.0 | 14.1 | 327.7 | 3.2 |
| 24 | 1110 1000 | 335.000 | 349.2 | -0.1 | -0.2 | 18.3 | 343.6 | 5.5 |
| 25 | 1110 0111 | 350.625 | 354.1 | -0.1 | -0.1 | 4.9 | 359.6 | -5.4 |

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216 SCHEMATIC MAPPER BOX UNIT TEST MODEL.. FLT. S/N 3 PAGE 417

1/11/72 13:32:43 PENALTY FUEL PERFORMANCE & AMBIENT TEMP.

1/11/72 13:32:43 PENALTY FUEL PERFORMANCE & AMBIENT TEMP. SECOND - 2, SENSOR=14

HAC
TFST
S27

07 30 00

| SHOULD AND OUTPUT
MEAS THRESHOLD | IDEAL
VALUE
(V) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION | | |
|-------------------------------------|-----------------------|---------------------------|-------|-------|------------------------------------|---|-------|------|
| | | NOMINAL | LOWER | UPPER | | | | |
| 26 | 1110 0110 | 356.250 | 374.3 | 0.2 | 0.1 | 20.2 | 375.5 | -1.2 |
| 27 | 1110 0101 | 391.875 | 392.6 | -0.8 | 0.0 | 18.3 | 391.4 | 1.1 |
| 28 | 1110 0100 | 397.500 | 414.6 | -0.2 | -0.2 | 22.1 | 407.4 | 7.3 |
| 29 | 1110 0011 | 413.125 | 421.1 | -0.1 | 0.1 | 6.5 | 423.3 | -2.2 |
| 30 | 1110 0010 | 428.750 | 447.8 | 0.2 | 0.2 | 26.6 | 439.2 | 8.1 |
| 31 | 1110 0001 | 434.375 | 453.8 | -0.1 | -0.0 | 11.1 | 437.2 | 3.7 |
| 32 | 1110 0000 | 450.000 | 471.3 | 0.1 | 0.1 | 12.5 | 471.1 | 0.3 |
| 33 | 1101 1111 | 475.625 | 482.5 | -0.1 | 0.0 | 11.1 | 487.0 | -4.5 |
| 34 | 1101 1110 | 491.250 | 499.1 | 0.1 | -0.0 | 16.6 | 503.0 | -3.9 |
| 35 | 1101 1101 | 506.875 | 520.8 | -0.1 | 0.1 | 21.7 | 518.9 | 1.9 |
| 36 | 1101 1100 | 522.500 | 533.5 | -0.4 | 0.0 | 12.7 | 534.8 | -1.3 |
| 37 | 1101 1011 | 538.125 | 549.6 | -0.1 | -0.0 | 16.0 | 550.8 | -1.2 |
| 38 | 1101 1010 | 553.750 | 572.5 | -0.1 | -0.1 | 23.0 | 564.7 | 7.8 |
| 39 | 1101 1001 | 569.375 | 587.8 | -0.1 | -0.1 | 15.3 | 582.6 | 5.2 |
| 40 | 1101 1000 | 585.000 | 602.5 | -0.8 | -0.3 | 14.7 | 598.6 | 3.9 |
| 41 | 1101 0111 | 600.625 | 610.9 | -0.1 | -0.0 | 8.4 | 614.5 | -3.6 |
| 42 | 1101 0110 | 616.250 | 630.2 | -0.2 | -0.2 | 19.3 | 630.4 | -0.2 |
| 43 | 1101 0101 | 631.875 | 649.1 | -0.1 | -0.0 | 18.9 | 646.4 | 2.7 |
| 44 | 1101 0100 | 647.500 | 667.4 | -0.0 | -0.1 | 13.3 | 662.3 | 5.1 |
| 45 | 1101 0011 | 663.125 | 677.5 | -0.1 | 0.0 | 10.1 | 678.2 | -0.7 |
| 46 | 1101 0010 | 678.750 | 703.4 | -0.4 | -0.2 | 25.9 | 694.2 | 9.3 |
| 47 | 1101 0001 | 694.375 | 715.4 | 0.1 | 0.1 | 12.0 | 710.1 | 5.3 |
| 48 | 1101 0000 | 710.000 | 729.5 | 0.3 | -0.1 | 14.0 | 726.8 | 3.4 |
| 49 | 1100 1111 | 735.625 | 738.0 | -0.1 | 0.0 | 8.5 | 742.0 | -4.0 |
| 50 | 1100 1110 | 751.250 | 754.9 | -0.1 | 0.2 | 16.9 | 757.9 | -3.0 |
| 51 | 1100 1101 | 766.875 | 776.2 | -0.1 | 0.0 | 21.3 | 773.8 | 2.4 |

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PAGE 419

Z11.30 13:32:43 15 NOV 1971 PERFORMANCE & AGREEMENT 1:56.

BUFFET LUNCH REFRESHED BY THE; GROUND = 270 SENSOR=167



REV 30 '81

| CODE
DEC | A/D OUTPUT
THRESHOLD | TOTAL
VOLTAGE
(MV) | ANALOG INPUT VOLTAGE (MV) | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | | |
|-------------|-------------------------|--------------------------|-------------------------------|-----------------|------------------------------------|------------------------|-----------|------|
| | | | LEVELS RATIO
NOMINAL LOWER | 1 : 1
DIFFER | | POINT | DEVIATION | |
| 2 | 1011 0001 | 1194.38 | 1225.5 | -0.0 | 0.0 | 11.9 | 1220.0 | 5.6 |
| 3 | 1011 0000 | 1210.00 | 1236.5 | -0.1 | -0.5 | 11.0 | 1235.9 | 0.6 |
| 4 | 1010 1111 | 1225.63 | 1248.1 | -0.0 | -0.0 | 11.6 | 1251.8 | -3.7 |
| 5 | 1010 1110 | 1241.25 | 1264.3 | 0.3 | 0.3 | 16.2 | 1267.8 | -3.5 |
| 6 | 1010 1101 | 1256.88 | 1285.5 | 0.0 | -0.0 | 21.2 | 1283.7 | 1.8 |
| 7 | 1010 1100 | 1272.50 | 1300.2 | -0.3 | -0.3 | 14.7 | 1299.6 | 0.6 |
| 8 | 1010 1011 | 1288.13 | 1314.1 | 0.0 | -0.5 | 13.9 | 1315.6 | -1.5 |
| 9 | 1010 1010 | 1303.75 | 1337.1 | 0.3 | 0.2 | 23.0 | 1331.5 | 5.6 |
| 0 | 1010 1001 | 1319.38 | 1361.8 | 0.0 | 0.0 | 14.7 | 1347.4 | 4.4 |
| 1 | 1010 1000 | 1335.00 | 1370.0 | -0.2 | -0.2 | 18.1 | 1363.4 | 6.6 |
| 2 | 1010 0111 | 1350.63 | 1374.8 | -0.0 | 0.0 | 4.9 | 1379.3 | -4.5 |
| 3 | 1010 0110 | 1366.25 | 1393.8 | 0.2 | 0.0 | 18.9 | 1395.2 | -1.5 |
| 4 | 1010 0101 | 1381.88 | 1412.5 | -0.1 | -0.1 | 18.7 | 1411.2 | 1.3 |
| 5 | 1010 0100 | 1397.50 | 1433.6 | 0.1 | -0.1 | 21.2 | 1427.1 | 6.5 |
| 6 | 1010 0011 | 1413.13 | 1440.8 | 0.0 | 0.1 | 7.2 | 1443.0 | -2.2 |
| 7 | 1010 0010 | 1428.75 | 1467.1 | 0.0 | -0.2 | 24.3 | 1459.0 | 8.1 |
| 8 | 1010 0001 | 1444.38 | 1478.6 | -0.1 | 0.0 | 11.5 | 1474.9 | 3.7 |
| 9 | 1010 0000 | 1460.00 | 1495.5 | -0.2 | 0.1 | 17.0 | 1490.9 | 4.6 |
| 0 | 1001 1111 | 1475.63 | 1502.1 | -0.1 | 0.0 | 4.5 | 1506.8 | -4.7 |
| 1 | 1001 1110 | 1491.25 | 1517.4 | -0.2 | -0.2 | 15.3 | 1522.7 | -5.9 |
| 2 | 1001 1101 | 1506.88 | 1539.3 | -0.0 | 0.1 | 21.9 | 1538.7 | 0.7 |
| 3 | 1001 1100 | 1522.50 | 1550.4 | 0.3 | 0.3 | 11.0 | 1554.6 | -4.2 |
| 4 | 1001 1011 | 1538.13 | 1567.9 | -0.1 | 0.0 | 17.5 | 1570.5 | -2.7 |
| 5 | 1001 1010 | 1553.75 | 1590.3 | -0.3 | -0.2 | 22.4 | 1586.5 | 3.9 |
| 6 | 1001 1001 | 1569.38 | 1605.6 | 0.0 | -0.0 | 15.3 | 1607.4 | 3.2 |
| 7 | 1001 1000 | 1585.00 | 1619.0 | -0.5 | 0.3 | 13.4 | 1618.3 | 0.7 |

OF POOR QUALITY

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... ..

IIAC
TFST
5274

NOV 30 '81

| TESTED
NUMBER | AND
THRESHOLD | OUTPUT
THRESHOLD | DIGITAL
VALUE
(V) | ANALOG
NOMINAL | INPUT VOLTAGE
LEVELS RATIO-
LOWER | (MV)
1 : 1
DIFFER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT | DEVIATION |
|------------------|------------------|---------------------|-------------------------|-------------------|---|-------------------------|------------------------------------|---------------------------------|-----------|
| 105 | 1001 | 0111 | 1600.63 | 1628.8 | -0.1 | -0.1 | 9.7 | 1634.3 | -3.5 |
| 106 | 1001 | 0110 | 1616.25 | 1646.9 | -0.3 | -0.0 | 18.2 | 1650.2 | -3.3 |
| 107 | 1001 | 0101 | 1631.88 | 1666.2 | -0.1 | -0.0 | 19.3 | 1666.1 | 0.1 |
| 108 | 1001 | 0100 | 1642.50 | 1683.6 | -0.1 | -0.1 | 17.4 | 1682.1 | 1.5 |
| 109 | 1001 | 0011 | 1663.13 | 1694.7 | -0.0 | -0.0 | 11.1 | 1698.0 | -3.3 |
| 110 | 1001 | 0010 | 1678.75 | 1719.6 | 0.3 | 0.3 | 24.9 | 1713.9 | 5.7 |
| 111 | 1001 | 0001 | 1694.38 | 1732.3 | -0.1 | -0.0 | 12.7 | 1729.9 | 2.5 |
| 112 | 1001 | 0000 | 1710.00 | 1750.0 | -0.4 | -0.5 | 17.7 | 1745.8 | 4.2 |
| 113 | 1000 | 1111 | 1725.63 | 1755.0 | 0.0 | -0.0 | 4.9 | 1761.7 | -6.8 |
| 114 | 1000 | 1110 | 1741.25 | 1770.4 | 0.3 | 0.4 | 15.4 | 1777.7 | -7.3 |
| 115 | 1000 | 1101 | 1756.88 | 1792.2 | -0.0 | 0.1 | 21.8 | 1793.6 | -1.4 |
| 116 | 1000 | 1100 | 1772.50 | 1806.8 | -0.1 | -0.1 | 14.6 | 1809.5 | -2.7 |
| 117 | 1000 | 1011 | 1788.13 | 1820.7 | 0.0 | 0.0 | 13.9 | 1825.5 | -4.7 |
| 118 | 1000 | 1010 | 1803.75 | 1843.9 | 0.2 | -0.2 | 23.1 | 1841.4 | 2.5 |
| 119 | 1000 | 1001 | 1819.38 | 1858.5 | -0.1 | -0.0 | 14.7 | 1857.3 | 1.2 |
| 120 | 1000 | 1000 | 1835.00 | 1878.3 | -0.1 | -0.1 | 19.3 | 1873.3 | 5.0 |
| 121 | 1000 | 0111 | 1850.63 | 1881.5 | 0.1 | 0.0 | 3.2 | 1889.2 | -7.7 |
| 122 | 1000 | 0110 | 1866.25 | 1900.0 | -0.0 | 0.3 | 18.5 | 1905.1 | -5.1 |
| 123 | 1000 | 0101 | 1881.88 | 1919.1 | -0.0 | 0.0 | 19.0 | 1921.1 | -2.0 |
| 124 | 1000 | 0100 | 1897.50 | 1941.1 | -0.2 | -0.1 | 22.1 | 1937.0 | 4.1 |
| 125 | 1000 | 0011 | 1913.13 | 1947.4 | 0.0 | 0.0 | 6.2 | 1952.9 | -1.6 |
| 126 | 1000 | 0010 | 1928.75 | 1973.3 | -0.3 | -0.4 | 25.9 | 1968.9 | 4.5 |
| 127 | 1000 | 0001 | 1944.38 | 1985.1 | -0.1 | 0.0 | 11.8 | 1984.8 | 0.3 |
| 128 | 1000 | 0000 | 1960.00 | 1998.6 | -0.3 | -0.3 | 13.5 | 2000.7 | -2.1 |
| 129 | 0111 | 1111 | 1975.63 | 2011.5 | 0.0 | 0.3 | 12.8 | 2016.7 | -5.2 |
| 130 | 0111 | 1110 | 1991.25 | 2028.6 | -0.3 | -0.4 | 17.1 | 2032.6 | -4.0 |

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HS-276 DIGITAL DAPPER MIX UNIT TEST MODEL 11 FLT. S/N 3 PAGE 422

1981/12/30 13:22:43 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4.22-13.1-13.5/10 THRESHOLD TEST (SIGN) = 2, SENSOR = 1.4



BY 30 21

| DIGITAL AND OUTPUT | | | ANALOG INPUT VOLTAGE (MV) | | TIMEBASE | | BEST FIT STRAIGHT LINE | | |
|--------------------|------|------|---------------------------|----------------|----------|-----------|------------------------|--------|-----------|
| DESIGN | TEST | UNIT | UNIT | LEVELS RATIO = | 1 : 1 | FROM PREV | | | |
| | | | (MV) | NOMINAL | LOWER | UPPER | THRESHOLD | POINT | DEVIATION |
| 158 | 0110 | 0010 | 2478.75 | 2487.2 | -0.2 | -0.3 | 29.7 | 2478.7 | 8.5 |
| 159 | 0110 | 0001 | 2444.38 | 2494.9 | -0.1 | -0.1 | 7.6 | 2494.7 | 0.2 |
| 160 | 0110 | 0000 | 2460.00 | 2512.9 | -0.5 | -0.3 | 18.0 | 2510.6 | 2.3 |
| 161 | 0101 | 1111 | 2475.63 | 2519.0 | 0.1 | 0.1 | 6.1 | 2526.5 | -7.6 |
| 162 | 0101 | 1110 | 2491.25 | 2535.3 | -0.4 | -0.0 | 17.3 | 2542.5 | -7.1 |
| 163 | 0101 | 1101 | 2506.88 | 2555.8 | -0.1 | -0.1 | 20.4 | 2558.4 | -2.7 |
| 164 | 0101 | 1100 | 2522.50 | 2568.9 | -0.1 | -0.4 | 13.1 | 2574.3 | -5.5 |
| 165 | 0101 | 1011 | 2538.13 | 2584.7 | -0.1 | -0.0 | 15.8 | 2590.3 | -5.6 |
| 166 | 0101 | 1010 | 2553.75 | 2608.8 | 0.1 | 0.2 | 24.1 | 2606.2 | 2.6 |
| 167 | 0101 | 1001 | 2569.38 | 2622.2 | -0.1 | -0.0 | 14.3 | 2622.1 | 0.0 |
| 168 | 0101 | 1000 | 2585.00 | 2640.7 | -0.2 | -0.1 | 18.5 | 2638.1 | 2.6 |
| 169 | 0101 | 0111 | 2600.63 | 2646.0 | 0.0 | -0.1 | 5.3 | 2654.0 | -8.0 |
| 170 | 0101 | 0110 | 2616.25 | 2664.6 | 0.2 | 0.2 | 18.6 | 2669.9 | -5.3 |
| 171 | 0101 | 0101 | 2631.88 | 2682.7 | 0.0 | 0.1 | 18.1 | 2687.9 | -3.1 |
| 172 | 0101 | 0100 | 2647.50 | 2701.7 | -0.2 | -0.2 | 19.0 | 2701.8 | -0.1 |
| 173 | 0101 | 0011 | 2663.13 | 2711.5 | 0.0 | 0.1 | 9.8 | 2717.7 | -6.2 |
| 174 | 0101 | 0010 | 2678.75 | 2739.5 | 0.7 | 0.4 | 28.0 | 2733.7 | 5.8 |
| 175 | 0101 | 0001 | 2694.38 | 2749.1 | 0.0 | 0.0 | 9.5 | 2749.6 | -0.6 |
| 176 | 0101 | 0000 | 2710.00 | 2767.9 | -0.6 | -0.1 | 11.2 | 2765.3 | 2.6 |
| 177 | 0100 | 1111 | 2725.63 | 2772.4 | -0.1 | -0.1 | 4.4 | 2781.5 | -9.1 |
| 178 | 0100 | 1110 | 2741.25 | 2788.9 | -0.0 | -0.1 | 16.5 | 2797.4 | -8.5 |
| 179 | 0100 | 1101 | 2756.88 | 2812.1 | 0.0 | -0.1 | 20.2 | 2813.4 | -1.3 |
| 180 | 0100 | 1100 | 2772.50 | 2825.2 | 0.1 | 0.1 | 13.1 | 2829.3 | -4.1 |
| 181 | 0100 | 1011 | 2788.13 | 2838.1 | 0.0 | 0.0 | 12.9 | 2845.2 | -7.1 |
| 182 | 0100 | 1010 | 2803.75 | 2863.3 | -0.3 | -0.5 | 25.3 | 2861.2 | 2.2 |
| 183 | 0100 | 1001 | 2819.38 | 2875.7 | -0.1 | -0.1 | 12.3 | 2877.1 | -1.4 |

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QUALITY**

[illegible]

| TIME STEP ID
PNO. 3 | 640 OUTPUT
TIME STEP ID | DEVIATION
(IN) | MEAN OF INPUT VOL TAGE
LEVELS (NOMINAL) | INCREASE
FROM PREVIOUS
TIME STEP | POINT
DEVIATION |
|------------------------|----------------------------|-------------------|--|--|--------------------|
| 184 | 0100 1000 | 2835.60 | 2898.2 | 0.2 | 0.3 |
| 185 | 0100 0111 | 2830.62 | 2899.6 | -0.0 | 0.1 |
| 186 | 0100 0110 | 2834.25 | 2918.5 | -0.3 | -0.2 |
| 187 | 0100 0101 | 2831.08 | 2906.5 | 0.1 | 0.1 |
| 188 | 0100 0100 | 2827.52 | 2959.7 | -0.0 | 0.1 |
| 189 | 0100 0011 | 2813.13 | 2865.2 | -0.0 | 0.0 |
| 190 | 0100 0010 | 2831.25 | 2994.3 | -1.3 | 0.2 |
| 191 | 0100 0001 | 2844.38 | 3002.7 | -0.0 | 0.0 |
| 192 | 0100 0000 | 2830.00 | 3016.3 | -0.0 | -0.6 |
| 193 | 0111 1111 | 2825.63 | 3028.3 | 0.1 | 0.2 |
| 194 | 0011 1110 | 2821.25 | 3050.3 | 0.4 | 0.3 |
| 195 | 0011 1101 | 2806.18 | 3068.4 | 0.1 | 0.0 |
| 196 | 0011 1100 | 2812.50 | 3077.8 | -0.6 | -0.8 |
| 197 | 0011 1011 | 2858.13 | 3094.4 | 0.0 | 0.0 |
| 198 | 0011 1010 | 2833.75 | 3118.9 | 0.2 | 0.2 |
| 199 | 0011 1001 | 2809.59 | 3132.1 | -0.1 | 0.1 |
| 200 | 0011 1000 | 2831.50 | 3145.8 | -0.0 | -0.1 |
| 201 | 0011 0111 | 2832.23 | 3156.4 | -0.2 | -0.1 |
| 202 | 0011 0110 | 2835.25 | 3174.0 | 0.2 | 0.2 |
| 203 | 0011 0101 | 2832.50 | 3193.5 | -0.1 | 0.0 |
| 204 | 0011 0100 | 2832.50 | 3210.4 | -0.2 | -0.1 |
| 205 | 0011 0011 | 2833.13 | 3222.3 | -1.0 | 0.1 |
| 206 | 0011 0010 | 3128.25 | 3251.0 | -0.8 | -1.5 |
| 207 | 0011 0001 | 3104.28 | 3259.8 | 0.0 | 0.1 |
| 208 | 0011 0000 | 3210.00 | 3271.5 | 0.3 | 0.3 |
| 209 | 0010 1111 | 3225.63 | 3282.8 | 0.0 | 0.0 |

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195-2935 SERIAL 10011R BOX UNIT TEST MODEL 1.1.1. S/N 3 PAGE 424

1981/11/30 13:32:43 FINALITY FULL PERFORMANCE @ AMBIENT TEMP.

TEST 11/30/81 13:32:43 THRESHOLD 10 TEST CHANNEL 22 SENSITIVITY 1.5

HAC
TEST
527

| TESTED D S/D OUTPUT
NUMBER | THRESHOLD | TOTAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|-------------------------------|-----------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3300.2 | -0.4 | -0.2 | 17.4 | 3307.3 | -7.1 |
| 211 | 0010 1101 | 3256.88 | 3322.9 | 0.0 | 0.0 | 22.7 | 3323.2 | -0.3 |
| 212 | 0010 1100 | 3272.50 | 3335.2 | 0.4 | 0.6 | 12.3 | 3339.2 | -3.9 |
| 213 | 0010 1011 | 3288.13 | 3350.0 | -0.1 | 0.0 | 14.7 | 3355.1 | -7.1 |
| 214 | 0010 1010 | 3303.75 | 3375.2 | -0.4 | -0.4 | 25.2 | 3371.0 | 4.2 |
| 215 | 0010 1001 | 3319.38 | 3387.9 | -0.0 | -0.0 | 12.7 | 3387.0 | 0.9 |
| 216 | 0010 1000 | 3335.00 | 3407.7 | 0.2 | 0.1 | 19.8 | 3402.9 | 4.8 |
| 217 | 0010 0111 | 3350.63 | 3411.0 | 0.0 | -0.0 | 4.1 | 3418.8 | -7.0 |
| 218 | 0010 0110 | 3366.25 | 3431.1 | -0.4 | 0.0 | 19.3 | 3434.8 | -3.7 |
| 219 | 0010 0101 | 3381.88 | 3453.2 | -4.3 | -0.2 | 22.1 | 3450.7 | 2.5 |
| 220 | 0010 0100 | 3397.50 | 3470.8 | -0.2 | 0.1 | 17.6 | 3466.6 | 4.2 |
| 221 | 0010 0011 | 3413.13 | 3478.2 | -0.0 | -0.0 | 7.4 | 3482.6 | -4.4 |
| 222 | 0010 0010 | 3428.75 | 3507.4 | 0.2 | 0.2 | 29.2 | 3498.5 | 8.9 |
| 223 | 0010 0001 | 3444.38 | 3516.0 | -0.1 | -0.1 | 8.5 | 3514.4 | 1.5 |
| 224 | 0010 0000 | 3460.00 | 3535.9 | -0.3 | -0.3 | 19.9 | 3530.4 | 5.5 |
| 225 | 0001 1111 | 3475.63 | 3540.1 | 0.1 | 0.0 | 4.2 | 3546.3 | -6.2 |
| 226 | 0001 1110 | 3491.25 | 3553.2 | -6.9 | 0.1 | 23.1 | 3562.2 | 0.9 |
| 227 | 0001 1101 | 3506.88 | 3580.5 | -0.1 | -0.0 | 17.3 | 3578.2 | 2.3 |
| 228 | 0001 1100 | 3522.50 | 3589.9 | -0.4 | -0.4 | 9.4 | 3594.1 | -4.2 |
| 229 | 0001 1011 | 3538.13 | 3607.5 | -0.1 | -0.1 | 17.6 | 3610.0 | -2.5 |
| 230 | 0001 1010 | 3553.75 | 3630.9 | 0.1 | 0.4 | 21.4 | 3626.0 | 4.9 |
| 231 | 0001 1001 | 3569.38 | 3645.0 | -0.0 | 0.1 | 14.1 | 3641.9 | 3.1 |
| 232 | 0001 1000 | 3585.00 | 3656.1 | 1.9 | 0.0 | 11.1 | 3657.8 | -1.7 |
| 233 | 0001 0111 | 3600.63 | 3669.3 | -0.1 | -0.1 | 13.2 | 3673.8 | -4.4 |
| 234 | 0001 0110 | 3616.25 | 3687.9 | -0.1 | -0.3 | 18.6 | 3689.7 | -1.8 |
| 235 | 0001 0101 | 3631.88 | 3710.3 | 0.0 | -0.1 | 22.4 | 3705.6 | 4.2 |
| 236 | 0001 0100 | 3647.50 | 3724.7 | -0.1 | 0.0 | 14.3 | 3721.6 | 3.1 |

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0.000000-00 A/D TRAFSHOLD TEST (RAND= 26 SENSIR=16)

HAC
TFST
S27

NOV 30 '81

| THRESHOLD NUMBER | X/Y | OUTPUT THRESHOLD | THRESHOLD VALUE (%) | ANALOG INPUT VOLTAGE LEVELS RATIO | (MO.) 1:1 | INCREASE FROM PREV THRESHOLD | BEST FIT STRAIGHT LINE | POINT | DEVIATION |
|------------------|------|------------------|---------------------|-----------------------------------|-----------|------------------------------|------------------------|--------|-----------|
| | | | | NOMINAL | LOWER | UPPER | | | |
| 237 | 0001 | 0011 | 3443.13 | 3736.1 | -0.0 | 0.0 | 11.4 | 3737.5 | -1.4 |
| 238 | 0001 | 0010 | 3448.25 | 3734.0 | -0.2 | -0.6 | 27.9 | 3753.4 | 10.5 |
| 239 | 0001 | 0001 | 3444.36 | 3724.0 | -0.0 | 0.0 | 10.1 | 3769.4 | 4.7 |
| 240 | 0001 | 0000 | 3440.09 | 3725.0 | 0.2 | 0.2 | 21.0 | 3785.3 | 9.7 |
| 241 | 0006 | 1011 | 3444.63 | 3792.4 | -0.1 | 0.3 | 2.4 | 3801.2 | -3.8 |
| 242 | 0000 | 1110 | 3441.25 | 3814.2 | -0.5 | -0.4 | 16.8 | 3817.2 | -3.0 |
| 243 | 1000 | 1101 | 3446.03 | 3838.0 | -0.0 | -0.3 | 23.8 | 3853.1 | 4.9 |
| 244 | 0000 | 1100 | 3442.56 | 3840.3 | 0.2 | 0.0 | 12.3 | 3849.0 | 1.2 |
| 245 | 0006 | 1011 | 3443.15 | 3865.2 | 0.0 | -0.1 | 14.9 | 3865.6 | 0.2 |
| 246 | 0000 | 1010 | 3443.25 | 3869.5 | -0.5 | -0.1 | 24.3 | 3880.9 | 8.5 |
| 247 | 0006 | 1001 | 3442.36 | 3862.9 | -0.1 | -0.0 | 13.5 | 3896.8 | 6.1 |
| 248 | 0000 | 1000 | 3435.00 | 3875.0 | -0.1 | 0.5 | 22.1 | 3912.8 | 12.1 |
| 249 | 0000 | 0111 | 3439.63 | 3927.2 | 0.0 | 0.1 | 2.2 | 3928.7 | -1.5 |
| 250 | 0000 | 0110 | 3446.25 | 3941.8 | 0.2 | 0.3 | 18.5 | 3944.6 | 1.1 |
| 251 | 0000 | 0101 | 3461.48 | 3968.2 | 0.5 | -0.1 | 22.4 | 3960.6 | 7.6 |
| 252 | 0000 | 0100 | 3472.19 | 3982.5 | -0.5 | -0.2 | 19.3 | 3976.5 | 11.0 |
| 253 | 0000 | 0011 | 3413.15 | 3974.2 | -0.6 | 0.1 | 6.7 | 3992.4 | 1.8 |
| 254 | 0000 | 0010 | 3413.25 | 4022.8 | 0.1 | 0.2 | 28.6 | 4005.4 | 14.4 |
| 255 | 0000 | 0001 | 3444.36 | 4032.2 | -0.1 | 0.1 | 2.4 | 4024.3 | 7.9 |

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TEST
927

185-236 THERMATIC BATTERY MIX UNIT TEST MODEL .. FLT. S/N 3 PAGE 426
 1981/11/30 13:39:13 FINALLY FULL PERFORMANCE @ AMBIENT TEMP.
 0.25% RES-11 AND THRESHOLD TEST CHANN- 2+ SENSOR=12) 0.10 W
 S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT (4/- 0.0 - THRESH INC = 31.2)
 ALL HOLDING DATA ARE FOR INFORMATION ONLY

REF-11 FET STRAIGHT LINE TS: Y -15.874X -38.1MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.596%
 GUESS IS: 29.1MV
 COEFFICIENT OF DETERMINATION IS: R**2= .99998170
 AVERAGE TEMPERATURE DURING DC R-STORE IS: 64.5MV

REF-11 FET RMS ERROR = 4.811MV FRONT: RMS ERROR <= 7.817MV

THRESHOLD IS INCREMENTAL THRESHOLD INCREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 10.5MV | 222 | 15.948MV | 0.6MV | 249 | 6.308MV |

REF-11 FET TO FET AND CHANNEL TO CHANNEL RATIO = 1 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 4.7MV | 23 | -0.204MV | -7.6MV | 242 | 2.615MV |

REF-11 FET TO FET AND CHANNEL TO CHANNEL RATIO = 1 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 1.1MV | 11 | 0.045MV | -6.1MV | 63 | 2.495MV |

TEST PASSED

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HAC
TEST
327

5. 3. 80

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| TEST SHEET NO. | TEST POINT | TEST VALUE | THEORY VALUE | MEASUREMENT ERROR | PERCENTAGE ERROR | INCREASE FROM PREV THRESHOLD | BEST FIT STRAIGHT LINE POINT | DEVIATION | |
|----------------|------------|------------|--------------|-------------------|------------------|------------------------------|------------------------------|-----------|------|
| 12 | 1100 | 1100 | 777.500 | 788.6 | 0.8 | 0.9 | 17.1 | 787.4 | 1.2 |
| 13 | 1100 | 1011 | 788.125 | 799.8 | -0.1 | 0.9 | 11.2 | 803.2 | -3.4 |
| 14 | 1100 | 1010 | 803.250 | 820.9 | -0.1 | -0.7 | 20.1 | 819.1 | 6.2 |
| 15 | 1100 | 1007 | 819.375 | 841.7 | -5.0 | -4.7 | 16.5 | 835.6 | 6.8 |
| 16 | 1100 | 1000 | 841.625 | 869.5 | 1.6 | 6.9 | 17.8 | 850.8 | 8.7 |
| 17 | 1100 | 0111 | 869.625 | 860.8 | 3.7 | 5.7 | 1.3 | 866.7 | -0.9 |
| 18 | 1100 | 0110 | 860.250 | 882.6 | -0.9 | 0.0 | 21.8 | 882.6 | 0.0 |
| 19 | 1100 | 0101 | 882.375 | 902.1 | -4.3 | -4.4 | 19.5 | 898.5 | 3.6 |
| 20 | 1100 | 0100 | 902.125 | 923.1 | -0.1 | -0.8 | 20.9 | 914.3 | 8.7 |
| 61 | 1100 | 0011 | 914.125 | 925.8 | 3.5 | 5.5 | 3.8 | 936.2 | -3.4 |
| 62 | 1100 | 0010 | 925.250 | 943.8 | 0.9 | 6.3 | 27.0 | 944.1 | 7.8 |
| 63 | 1100 | 0001 | 943.750 | 969.7 | -6.1 | -5.5 | 15.9 | 967.0 | 7.8 |
| 64 | 1100 | 0000 | 969.625 | 976.3 | -1.8 | 0.9 | 6.6 | 977.3 | -1.5 |
| | | | | | | | | | |
| 65 | 1011 | 1111 | 976.625 | 988.5 | 4.1 | 6.1 | 12.2 | 993.7 | -5.2 |
| 66 | 1011 | 1110 | 988.125 | 1010.3 | 0.3 | 6.8 | 21.8 | 1009.6 | 0.7 |
| 67 | 1011 | 1101 | 1009.625 | 1026.1 | 0.6 | 4.6 | 15.8 | 1020.5 | 0.7 |
| 68 | 1011 | 1100 | 1026.250 | 1043.2 | -2.1 | -6.8 | 17.1 | 1041.3 | 1.9 |
| 69 | 1011 | 1011 | 1043.125 | 1068.5 | -1.9 | -4.4 | 15.3 | 1057.2 | 1.3 |
| 70 | 1011 | 1010 | 1068.250 | 1072.7 | 0.7 | -6.1 | 21.2 | 1073.1 | 6.6 |
| 71 | 1011 | 1001 | 1072.375 | 1091.8 | -0.5 | 0.9 | 12.1 | 1095.9 | 2.9 |
| 72 | 1011 | 1000 | 1091.625 | 1104.4 | -0.5 | 0.0 | 12.5 | 1104.8 | 0.4 |
| 73 | 1011 | 0111 | 1104.250 | 1119.4 | -4.0 | -4.3 | 15.0 | 1126.7 | -1.3 |
| 74 | 1011 | 0110 | 1119.375 | 1136.3 | 0.0 | -3.8 | 17.3 | 1134.6 | 0.2 |
| 75 | 1011 | 0101 | 1136.125 | 1152.7 | 4.2 | 6.2 | 15.9 | 1157.4 | 0.2 |
| 76 | 1011 | 0100 | 1152.375 | 1171.2 | 0.6 | 6.7 | 18.5 | 1168.3 | 2.3 |
| 77 | 1011 | 0011 | 1171.125 | 1185.0 | -3.6 | 0.0 | 11.9 | 1184.2 | 0.9 |
| 78 | 1011 | 0010 | 1185.250 | 1209.2 | -0.2 | -0.9 | 24.2 | 1200.1 | 9.2 |

HS-23A DYNAMIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 430
 1981/11/30 13:39:26 ANALOG FULL PERFORMANCE @ AMBIENT TEMP.
 1.5.7.1-13 AND THRESHOLD TEST (RANGE= 2, SENSOR=12)

HAC
TEST
S27

RV 33/01

| THRESHOLD AND OUTPUT
NUMBER R THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|------------------------|----------------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LEVELS RATIO-
LOWER | 1 : 1
UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1217.9 | 4.4 | 0.0 | 1215.9 | 2.0 |
| 80 | 1011 0000 | 1210.00 | 1231.3 | 0.9 | 0.8 | 1231.8 | -0.5 |
| 81 | 1010 1111 | 1225.63 | 1241.1 | -0.0 | 4.0 | 1247.7 | -6.6 |
| 82 | 1010 1110 | 1241.25 | 1260.3 | -0.7 | -0.8 | 1263.6 | -3.3 |
| 83 | 1010 1101 | 1256.88 | 1280.5 | -4.9 | -4.4 | 1279.4 | 4.1 |
| 84 | 1010 1100 | 1272.50 | 1294.5 | 0.9 | -0.0 | 1295.3 | -0.8 |
| 85 | 1010 1011 | 1288.13 | 1307.4 | 3.7 | 3.5 | 1311.2 | -3.8 |
| 86 | 1010 1010 | 1303.75 | 1333.2 | -0.7 | -0.2 | 1327.1 | 6.1 |
| 87 | 1010 1001 | 1319.38 | 1348.2 | -3.8 | -4.3 | 1342.9 | 5.2 |
| 88 | 1010 1000 | 1335.00 | 1364.8 | -0.1 | -1.3 | 1358.8 | 5.9 |
| 89 | 1010 0111 | 1350.63 | 1367.6 | 4.1 | 4.2 | 1374.7 | -7.1 |
| 90 | 1010 0110 | 1366.25 | 1388.5 | 0.8 | 0.7 | 1390.6 | -2.1 |
| 91 | 1010 0101 | 1381.88 | 1409.1 | -3.7 | 0.0 | 1406.4 | 7.7 |
| 92 | 1010 0100 | 1397.50 | 1428.6 | -0.7 | -0.9 | 1422.3 | 6.3 |
| 93 | 1010 0011 | 1413.13 | 1433.3 | 3.8 | 0.0 | 1438.2 | -4.8 |
| 94 | 1010 0010 | 1428.75 | 1460.8 | 0.9 | 0.8 | 1454.1 | 6.8 |
| 95 | 1010 0001 | 1444.38 | 1470.0 | -0.0 | 4.5 | 1469.9 | 0.1 |
| 96 | 1010 0000 | 1460.00 | 1489.9 | -0.8 | -0.8 | 1485.8 | 4.1 |
| 97 | 1001 1111 | 1475.63 | 1497.7 | -3.8 | -3.5 | 1501.7 | -4.0 |
| 98 | 1001 1110 | 1491.25 | 1515.0 | 0.8 | 0.0 | 1517.6 | -2.4 |
| 99 | 1001 1101 | 1506.88 | 1532.0 | 4.0 | 4.2 | 1533.4 | -1.4 |
| 100 | 1001 1100 | 1522.50 | 1548.5 | -4.3 | -0.1 | 1549.3 | -0.8 |
| 101 | 1001 1011 | 1538.13 | 1563.9 | -3.7 | -4.0 | 1565.2 | -1.3 |
| 102 | 1001 1010 | 1553.75 | 1585.0 | -0.1 | -0.7 | 1581.1 | 4.0 |
| 103 | 1001 1001 | 1569.38 | 1596.9 | 4.3 | 4.3 | 1596.9 | -0.1 |
| 104 | 1001 1000 | 1585.00 | 1611.4 | 0.8 | 0.9 | 1612.8 | -1.4 |

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HS-236 THERMATIC MASTER MIX UNIT TEST MODEL 1117 S/N 3 PAGE 432

1981/11/30 13:39:26 TYPICAL FULL PERFORMANCE @ AMBIENT TEMP.

TEST 1117-1117 ANALOG THRESHOLD IS 1117 (POND)= 2 SENSOR=12

HAC
TFST
S27

| THRESHOLD
NUMBER | AND OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2043.6 | -1.4 | 1.4 | 22.1 | 2041.4 | 2.2 |
| 132 | 0111 1100 | 2022.50 | 2075.2 | -0.1 | -0.1 | 11.6 | 2057.3 | -2.1 |
| 133 | 0111 1011 | 2038.13 | 2071.4 | -3.9 | 0.1 | 16.2 | 2073.2 | -1.7 |
| 134 | 0111 1010 | 2053.75 | 2095.2 | -0.3 | -0.3 | 23.8 | 2089.0 | 6.2 |
| 135 | 0111 1001 | 2069.38 | 2108.5 | 0.0 | 0.9 | 13.2 | 2104.9 | 3.6 |
| 136 | 0111 1000 | 2085.00 | 2120.9 | 0.9 | 0.9 | 12.4 | 2120.8 | 0.1 |
| 137 | 0111 0111 | 2100.63 | 2128.2 | 4.3 | 4.4 | 7.3 | 2136.7 | -8.5 |
| 138 | 0111 0110 | 2116.25 | 2150.7 | -0.7 | -0.3 | 22.5 | 2152.5 | -1.9 |
| 139 | 0111 0101 | 2131.88 | 2168.9 | 1.6 | 1.9 | 18.2 | 2168.4 | 0.5 |
| 140 | 0111 0100 | 2147.50 | 2186.1 | 0.1 | 0.5 | 17.2 | 2184.3 | 1.8 |
| 141 | 0111 0011 | 2163.13 | 2193.9 | 4.0 | 4.1 | 7.8 | 2200.2 | -6.3 |
| 142 | 0111 0010 | 2178.75 | 2223.6 | -0.0 | 0.3 | 29.7 | 2216.0 | 7.6 |
| 143 | 0111 0001 | 2194.38 | 2231.0 | -3.3 | -4.2 | 11.4 | 2231.9 | 3.1 |
| 144 | 0111 0000 | 2210.00 | 2241.3 | -3.4 | -0.3 | 10.3 | 2247.3 | -1.9 |
| 145 | 0110 1111 | 2225.63 | 2254.1 | 4.4 | 4.4 | 8.2 | 2263.6 | -9.6 |
| 146 | 0110 1110 | 2241.25 | 2273.5 | 0.7 | 0.2 | 19.4 | 2279.5 | -6.0 |
| 147 | 0110 1101 | 2256.88 | 2297.1 | -1.0 | 0.1 | 23.6 | 2295.4 | 1.7 |
| 148 | 0110 1100 | 2272.50 | 2310.0 | -0.2 | 0.9 | 12.9 | 2311.3 | -1.3 |
| 149 | 0110 1011 | 2288.13 | 2334.1 | -0.0 | -4.0 | 14.1 | 2327.1 | -1.0 |
| 150 | 0110 1010 | 2303.75 | 2347.1 | 0.6 | 0.3 | 23.0 | 2343.0 | 4.1 |
| 151 | 0110 1001 | 2319.38 | 2361.9 | -1.0 | -1.0 | 14.8 | 2358.9 | 3.0 |
| 152 | 0110 1000 | 2335.00 | 2379.7 | -0.7 | -0.6 | 17.7 | 2374.8 | 4.9 |
| 153 | 0110 0111 | 2350.63 | 2384.9 | -4.3 | -4.0 | 5.2 | 2390.6 | -5.7 |
| 154 | 0110 0110 | 2366.25 | 2402.5 | 0.3 | 0.0 | 17.6 | 2406.5 | -4.0 |
| 155 | 0110 0101 | 2381.88 | 2423.2 | -1.3 | 1.4 | 20.7 | 2422.4 | 0.8 |
| 156 | 0110 0100 | 2397.50 | 2442.4 | -0.0 | 0.3 | 19.2 | 2438.3 | 4.2 |
| 157 | 0110 0011 | 2413.13 | 2450.1 | -3.4 | -3.7 | 7.7 | 2454.1 | -4.0 |

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48-236 THERMATIC MAPPER MUX UNIT TEST MODEL .. FLT. S/N 3 PAGE 434

1981/11/30 13:39:26 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

HAC
TFST
S27

NOV 30 81

| THRESHOLD AND OUTPUT
NUMBER | THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM MIN
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------------------|-----------|------------------------|---------------------------|-----------------------|---------------|-----------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO-
100K | 1:1
DIFFER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2887.00 | 2887.6 | 0.0 | 0.9 | 24.8 | 2882.7 | 4.9 |
| 185 | 0100 0111 | 2890.63 | 2890.4 | -2.9 | -2.9 | 2.8 | 2898.6 | -8.2 |
| 186 | 0100 0110 | 2896.25 | 2908.5 | -0.9 | -0.8 | 18.1 | 2914.5 | -6.0 |
| 187 | 0100 0101 | 2881.88 | 2928.5 | 1.6 | -0.1 | 19.9 | 2930.4 | -1.9 |
| 188 | 0100 0100 | 2897.50 | 2949.0 | 0.9 | 0.8 | 20.5 | 2946.2 | 2.7 |
| 189 | 0100 0011 | 2913.13 | 2956.2 | 4.1 | 0.0 | 2.2 | 2962.1 | -5.0 |
| 190 | 0100 0010 | 2928.75 | 2982.7 | -1.0 | -1.0 | 26.5 | 2978.0 | 4.7 |
| 191 | 0100 0001 | 2944.38 | 2993.3 | 0.0 | 0.6 | 10.7 | 2993.9 | -0.5 |
| 192 | 0100 0000 | 2960.00 | 3004.3 | 0.6 | 0.6 | 10.9 | 3009.7 | -5.5 |
| 193 | 0011 1111 | 2975.63 | 3014.7 | 3.7 | 3.8 | 10.4 | 3025.6 | -10.9 |
| 194 | 0011 1110 | 2991.25 | 3040.3 | -1.1 | -0.1 | 25.6 | 3041.5 | -1.1 |
| 195 | 0011 1101 | 3006.88 | 3057.7 | -0.9 | 1.1 | 17.3 | 3057.4 | 0.3 |
| 196 | 0011 1100 | 3022.50 | 3068.0 | 0.3 | 0.0 | 10.3 | 3073.2 | -5.2 |
| 197 | 0011 1011 | 3038.13 | 3081.0 | 4.0 | 4.5 | 13.0 | 3089.1 | -8.1 |
| 198 | 0011 1010 | 3053.75 | 3107.3 | -0.1 | 0.9 | 26.3 | 3105.0 | 2.4 |
| 199 | 0011 1001 | 3069.38 | 3122.1 | 1.1 | 0.8 | 14.7 | 3120.9 | 1.2 |
| 200 | 0011 1000 | 3085.00 | 3135.6 | -5.9 | -1.0 | 13.5 | 3136.7 | -1.1 |
| 201 | 0011 0111 | 3100.63 | 3142.0 | 3.6 | 0.1 | 7.4 | 3152.6 | -10.6 |
| 202 | 0011 0110 | 3116.25 | 3163.2 | 0.8 | 0.8 | 21.1 | 3168.5 | 5.3 |
| 203 | 0011 0101 | 3131.88 | 3185.0 | -1.7 | 1.0 | 21.8 | 3184.4 | 0.7 |
| 204 | 0011 0100 | 3147.50 | 3200.4 | -0.8 | -5.6 | 15.4 | 3200.2 | 0.2 |
| 205 | 0011 0011 | 3163.13 | 3212.7 | -0.0 | -3.0 | 12.2 | 3216.1 | -3.4 |
| 206 | 0011 0010 | 3178.75 | 3237.5 | 0.8 | 0.9 | 24.8 | 3232.0 | 5.5 |
| 207 | 0011 0001 | 3194.38 | 3250.5 | -0.9 | -1.0 | 13.0 | 3247.9 | 2.6 |
| 208 | 0011 0000 | 3210.00 | 3264.4 | -0.7 | 0.0 | 13.9 | 3263.7 | 0.6 |
| 209 | 0010 1111 | 3225.63 | 3272.8 | -3.8 | -3.4 | 8.4 | 3279.6 | -6.8 |

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5-2007 THERMAL METER BOX UNIT TEST MODEL.. 111. S/N 3 PAGE 436

2012/11/30 13:39:26 PRIMARY TEST PERFORMANCE @ AMBIENT TEMP.

100% 100% 100% THERMAL METER TEST STAND= 27 SENSOR=127

HAC
TEST
527

| A/D OUTPUT
NUMBER | A/D OUTPUT
THRESHOLD | ANALOG
VOLTAGE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | DECREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|----------------------|-------------------------|---------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3743.13 | 3724.0 | -3.8 | -3.5 | 11.8 | 3724.1 | -0.1 |
| 238 | 0001 0010 | 3743.25 | 3749.7 | -0.2 | -0.9 | 25.6 | 3740.0 | 9.7 |
| 239 | 0001 0001 | 3744.38 | 3758.0 | 3.5 | 3.7 | 8.3 | 3755.8 | 2.2 |
| 240 | 0001 0000 | 3710.00 | 3780.2 | -0.1 | 1.0 | 22.2 | 3771.7 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3785.0 | -3.1 | -3.5 | 4.8 | 3787.6 | -2.6 |
| 242 | 0000 1110 | 3741.25 | 3807.2 | -7.6 | -0.6 | 22.2 | 3803.5 | 3.8 |
| 243 | 0000 1101 | 3756.88 | 3823.2 | 1.0 | -0.0 | 16.0 | 3819.3 | 3.9 |
| 244 | 0000 1100 | 3772.50 | 3836.0 | 0.9 | 1.0 | 12.7 | 3835.2 | 0.3 |
| 245 | 0000 1011 | 3788.13 | 3848.6 | -0.2 | 4.3 | 12.6 | 3851.1 | -2.5 |
| 246 | 0000 1010 | 3803.75 | 3876.4 | -1.1 | -1.0 | 27.7 | 3867.0 | 9.4 |
| 247 | 0000 1001 | 3819.38 | 3890.0 | 6.6 | -3.6 | 13.6 | 3887.8 | 7.1 |
| 248 | 0000 1000 | 3835.00 | 3910.6 | 0.7 | 1.1 | 20.6 | 3898.7 | 11.9 |
| 249 | 0000 0111 | 3850.63 | 3911.2 | 2.8 | 3.0 | 0.6 | 3914.6 | -3.4 |
| 250 | 0000 0110 | 3866.25 | 3932.1 | -1.0 | 0.0 | 20.9 | 3930.4 | 1.7 |
| 251 | 0000 0101 | 3881.88 | 3954.3 | -2.1 | -5.6 | 22.2 | 3946.3 | 8.8 |
| 252 | 0000 0100 | 3897.50 | 3973.9 | -0.3 | 0.4 | 19.6 | 3962.2 | 11.7 |
| 253 | 0000 0011 | 3913.13 | 3977.8 | 3.5 | 4.0 | 3.9 | 3978.1 | -0.3 |
| 254 | 0000 0010 | 3928.75 | 4006.6 | 0.2 | 1.0 | 18.8 | 3993.9 | 12.6 |
| 255 | 0000 0001 | 3944.38 | 4019.0 | -3.7 | -3.7 | 12.4 | 4009.8 | 9.2 |

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Appendix A

Multiplexer Performance Data

A/D THRESHOLD TEST DATA
Band 3

Section 4C

HAC
TEST
S27

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 437

1981/11/30 13:46:05 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1)
S U M M A R Y

BY JO W

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT (+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.836X - 49.4MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.351%

OFFSET IS: -49.4MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998530$

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.464MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 28.3MV | 243 | 15.903MV | 3.1MV | 241 | 5.681MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.7MV | 55 | -0.056MV | -3.4MV | 181 | .452MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 2.4MV | 100 | -0.003MV | -1.1MV | 227 | .391MV |

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TEST PASSED

S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 438

981/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=1) NOV 30 '81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -38.8 | -1.0 | -0.3 | | -33.5 | -5.3 |
| 2 | 1111 1110 | -8.750 | -24.8 | -0.4 | -0.4 | 14.0 | -17.7 | -7.1 |
| 3 | 1111 1101 | 6.875 | 0.0 | 0.3 | 0.0 | 24.8 | -1.9 | 1.9 |
| 4 | 1111 1100 | 22.500 | 11.9 | 0.3 | 0.5 | 11.9 | 14.0 | -2.1 |
| 5 | 1111 1011 | 38.125 | 27.0 | -0.0 | 0.4 | 15.1 | 29.8 | -2.8 |
| 6 | 1111 1010 | 53.750 | 44.5 | -0.5 | -0.4 | 17.4 | 45.7 | -1.2 |
| 7 | 1111 1001 | 69.375 | 64.6 | -0.5 | -0.5 | 20.1 | 61.5 | 3.1 |
| 8 | 1111 1000 | 85.000 | 72.5 | 0.3 | 0.3 | 7.9 | 77.3 | -4.8 |
| 9 | 1111 0111 | 100.625 | 86.1 | 0.4 | 0.4 | 15.6 | 93.2 | -5.0 |
| 10 | 1111 0110 | 116.250 | 104.9 | -0.2 | 0.0 | 16.8 | 109.0 | -4.1 |
| 11 | 1111 0101 | 131.875 | 125.5 | -0.5 | -0.3 | 20.6 | 124.8 | 0.7 |
| 12 | 1111 0100 | 147.500 | 143.2 | -0.0 | -0.4 | 17.6 | 140.7 | 2.5 |
| 13 | 1111 0011 | 163.125 | 154.1 | 0.4 | 0.4 | 10.9 | 156.5 | -2.4 |
| 14 | 1111 0010 | 178.750 | 173.7 | 0.1 | 0.3 | 19.5 | 172.3 | 1.3 |
| 15 | 1111 0001 | 194.375 | 191.3 | -0.4 | -0.4 | 17.7 | 188.2 | 3.2 |
| 16 | 1111 0000 | 210.000 | 202.3 | -0.4 | -0.4 | 10.9 | 204.0 | -1.7 |
| 17 | 1110 1111 | 225.625 | 215.6 | 0.4 | 0.0 | 13.3 | 219.9 | -4.3 |
| 18 | 1110 1110 | 241.250 | 229.5 | 0.2 | 0.3 | 14.0 | 235.7 | -6.2 |
| 19 | 1110 1101 | 256.875 | 254.8 | -0.1 | 0.3 | 25.2 | 251.5 | 3.3 |
| 20 | 1110 1100 | 272.500 | 268.3 | -0.4 | -0.4 | 13.6 | 267.4 | 1.0 |
| 21 | 1110 1011 | 288.125 | 282.1 | -0.4 | -0.4 | 13.7 | 283.2 | -1.1 |
| 22 | 1110 1010 | 303.750 | 298.4 | 0.2 | 0.3 | 16.3 | 299.0 | -0.6 |
| 23 | 1110 1001 | 319.375 | 318.5 | 0.2 | 0.3 | 20.1 | 314.9 | 3.6 |
| 24 | 1110 1000 | 335.000 | 332.0 | -0.4 | -0.0 | 13.5 | 330.7 | 1.3 |
| 25 | 1110 0111 | 350.625 | 343.1 | -0.4 | -0.4 | 11.0 | 346.5 | -3.5 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 439

1981/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1)

HAC
TEST
527

NO 30 81

| HRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 359.4 | -0.0 | -0.2 | 16.3 | 362.4 | -2.9 |
| 27 | 1110 0101 | 381.875 | 379.6 | 0.3 | 0.4 | 20.1 | 378.2 | 1.3 |
| 28 | 1110 0100 | 397.500 | 401.2 | 0.3 | 0.1 | 21.6 | 394.0 | 7.2 |
| 29 | 1110 0011 | 413.125 | 409.0 | -0.5 | -0.4 | 7.7 | 409.9 | -0.9 |
| 30 | 1110 0010 | 428.750 | 428.3 | -0.4 | -0.3 | 19.3 | 425.7 | 2.6 |
| 31 | 1110 0001 | 444.375 | 445.6 | 0.4 | -0.3 | 17.3 | 441.6 | 4.0 |
| 32 | 1110 0000 | 460.000 | 449.2 | 0.4 | 0.3 | 3.6 | 457.4 | -8.2 |
| 33 | 1101 1111 | 475.625 | 471.4 | -0.1 | 0.3 | 22.1 | 473.2 | -1.9 |
| 34 | 1101 1110 | 491.250 | 484.8 | -0.4 | -0.3 | 13.4 | 489.1 | -4.3 |
| 35 | 1101 1101 | 506.875 | 511.0 | -0.4 | -0.4 | 26.2 | 504.9 | 6.1 |
| 36 | 1101 1100 | 522.500 | 520.0 | 0.5 | 0.6 | 9.1 | 520.7 | -0.7 |
| 37 | 1101 1011 | 538.125 | 537.4 | 0.5 | 0.5 | 17.3 | 536.6 | 0.8 |
| 38 | 1101 1010 | 553.750 | 554.0 | -0.3 | -0.1 | 16.6 | 552.4 | 1.6 |
| 39 | 1101 1001 | 569.375 | 574.3 | -0.6 | -0.6 | 20.2 | 568.2 | 6.0 |
| 40 | 1101 1000 | 585.000 | 584.8 | -0.0 | -0.3 | 10.5 | 584.1 | 0.7 |
| 41 | 1101 0111 | 600.625 | 598.3 | 0.4 | 0.4 | 13.5 | 599.9 | -1.6 |
| 42 | 1101 0110 | 616.250 | 613.8 | 0.2 | 0.3 | 15.5 | 615.8 | -1.9 |
| 43 | 1101 0101 | 631.875 | 635.5 | -0.4 | -0.4 | 21.6 | 631.6 | 3.9 |
| 44 | 1101 0100 | 647.500 | 653.1 | -0.5 | -0.5 | 17.6 | 647.4 | 5.7 |
| 45 | 1101 0011 | 663.125 | 663.9 | 0.4 | 0.0 | 10.8 | 663.3 | 0.6 |
| 46 | 1101 0010 | 678.750 | 682.4 | 0.2 | 0.3 | 18.5 | 679.1 | 3.3 |
| 47 | 1101 0001 | 694.375 | 700.6 | -0.1 | 0.3 | 18.3 | 694.9 | 5.7 |
| 48 | 1101 0000 | 710.000 | 716.7 | -0.5 | -0.4 | 16.1 | 710.8 | 5.9 |
| 49 | 1100 1111 | 725.625 | 725.1 | -0.4 | -0.4 | 8.4 | 726.6 | -1.5 |
| 50 | 1100 1110 | 741.250 | 737.9 | 0.2 | 0.2 | 12.7 | 742.4 | -4.6 |
| 51 | 1100 1101 | 756.875 | 763.9 | 0.3 | 0.4 | 26.0 | 758.3 | 5.6 |

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I-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 440

'81/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1)

HAC
TEST
527

MD 30 3W

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-----------------------------------|------|------------------------------------|------------------------|-------------|
| | | NOMINAL | LEVELS RATIO= 1 :1
LOWER UPPER | | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 776.3 | -0.5 | 0.0 | 12.4 | 774.1 2.2 |
| 53 | 1100 1011 | 788.125 | 791.0 | -0.5 | -0.4 | 14.7 | 789.9 1.1 |
| 54 | 1100 1010 | 803.750 | 806.4 | -0.0 | -0.3 | 15.4 | 805.8 0.7 |
| 55 | 1100 1001 | 819.375 | 826.4 | 0.7 | 1.2 | 20.0 | 821.6 4.8 |
| 56 | 1100 1000 | 835.000 | 842.7 | 0.2 | 0.3 | 16.3 | 837.5 5.3 |
| 57 | 1100 0111 | 850.625 | 851.5 | -0.5 | -0.4 | 8.7 | 853.3 -1.8 |
| 58 | 1100 0110 | 866.250 | 866.7 | -0.3 | -0.3 | 15.2 | 869.1 -2.4 |
| 59 | 1100 0101 | 881.875 | 887.6 | 0.3 | 0.0 | 20.9 | 885.0 2.6 |
| 60 | 1100 0100 | 897.500 | 906.8 | 0.4 | 0.4 | 19.2 | 900.8 6.0 |
| 61 | 1100 0011 | 913.125 | 916.4 | -0.1 | 0.3 | 9.5 | 916.6 -0.3 |
| 62 | 1100 0010 | 928.750 | 934.9 | -0.3 | -0.3 | 18.6 | 932.5 2.5 |
| 63 | 1100 0001 | 944.375 | 952.9 | -0.3 | -0.3 | 18.0 | 948.3 4.6 |
| 64 | 1100 0000 | 960.000 | 958.9 | 0.5 | 0.5 | 5.9 | 964.1 -5.3 |
| 65 | 1011 1111 | 975.625 | 979.7 | 0.3 | 0.3 | 20.9 | 980.0 -0.2 |
| 66 | 1011 1110 | 991.250 | 993.2 | -0.3 | 0.0 | 13.4 | 995.8 -2.6 |
| 67 | 1011 1101 | 1006.88 | 1019.4 | -0.3 | -0.3 | 26.3 | 1011.7 7.8 |
| 68 | 1011 1100 | 1022.50 | 1029.9 | 0.0 | -0.4 | 10.4 | 1027.5 2.4 |
| 69 | 1011 1011 | 1038.13 | 1045.2 | 0.4 | 0.3 | 15.3 | 1043.3 1.9 |
| 70 | 1011 1010 | 1053.75 | 1061.7 | 0.3 | 0.2 | 16.5 | 1059.2 2.5 |
| 71 | 1011 1001 | 1069.38 | 1083.7 | -0.3 | -0.3 | 22.0 | 1075.0 8.7 |
| 72 | 1011 1000 | 1085.00 | 1088.8 | -0.3 | -0.3 | 5.0 | 1090.8 -2.0 |
| 73 | 1011 0111 | 1100.63 | 1105.7 | 0.4 | -0.0 | 16.9 | 1106.7 -1.0 |
| 74 | 1011 0110 | 1116.25 | 1121.1 | 0.3 | 0.3 | 15.4 | 1122.5 -1.4 |
| 75 | 1011 0101 | 1131.88 | 1142.9 | 0.2 | 0.3 | 21.8 | 1138.3 4.5 |
| 76 | 1011 0100 | 1147.50 | 1158.3 | -0.4 | -0.5 | 15.4 | 1154.2 4.1 |
| 77 | 1011 0011 | 1163.13 | 1171.0 | -0.4 | -0.3 | 12.7 | 1170.0 1.0 |
| 78 | 1011 0010 | 1178.75 | 1189.1 | 0.3 | 0.1 | 18.1 | 1185.8 3.3 |

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IS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 441

981/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

..5.3.5-8 A/D THRESHOLD TEST (EAND= 3, SENSOR=1)

HAC
TEST
527

NOV 30 1981

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1611 0001 | 1194.38 | 1209.2 | 0.2 | 0.3 | 20.1 | 1201.7 | 7.6 |
| 80 | 1011 0000 | 1210.00 | 1218.9 | -0.4 | -0.0 | 9.7 | 1217.5 | 1.4 |
| 81 | 1010 1111 | 1225.63 | 1231.6 | -0.4 | -0.4 | 12.7 | 1233.4 | -1.7 |
| 82 | 1010 1110 | 1241.25 | 1244.7 | 0.0 | -0.3 | 13.1 | 1249.2 | -4.5 |
| 83 | 1010 1101 | 1256.88 | 1270.7 | 0.3 | 0.3 | 26.0 | 1265.0 | 1.7 |
| 84 | 1010 1100 | 1272.50 | 1281.2 | 0.4 | 0.4 | 10.5 | 1280.9 | 0.4 |
| 85 | 1010 1011 | 1288.13 | 1297.2 | -0.4 | -0.5 | 15.9 | 1296.7 | 0.5 |
| 86 | 1010 1010 | 1303.75 | 1313.5 | -0.3 | -0.3 | 16.3 | 1312.5 | 0.9 |
| 87 | 1010 1001 | 1319.38 | 1334.6 | 0.3 | 0.1 | 21.1 | 1328.4 | 6.2 |
| 88 | 1010 1000 | 1335.00 | 1345.4 | 0.4 | 0.4 | 10.8 | 1344.2 | 1.1 |
| 89 | 1010 0111 | 1350.63 | 1357.0 | -0.0 | 0.4 | 11.6 | 1360.0 | -3.1 |
| 90 | 1010 0110 | 1366.25 | 1372.7 | -0.4 | -0.3 | 15.7 | 1375.9 | -3.2 |
| 91 | 1010 0101 | 1381.88 | 1394.3 | -0.3 | -0.3 | 21.6 | 1391.7 | 2.6 |
| 92 | 1010 0100 | 1397.50 | 1414.0 | 0.5 | 0.5 | 19.7 | 1407.6 | 6.5 |
| 93 | 1010 0011 | 1413.13 | 1421.8 | 0.5 | 0.4 | 7.8 | 1423.4 | -1.6 |
| 94 | 1010 0010 | 1428.75 | 1440.6 | -0.2 | 0.0 | 18.7 | 1439.2 | 1.3 |
| 95 | 1010 0001 | 1444.38 | 1460.5 | -0.3 | -0.2 | 19.9 | 1455.1 | 5.4 |
| 96 | 1010 0000 | 1460.00 | 1468.2 | 0.0 | -0.4 | 7.8 | 1470.9 | -2.7 |
| 97 | 1001 1111 | 1475.63 | 1484.7 | -0.3 | -0.2 | 16.4 | 1486.7 | -2.1 |
| 98 | 1001 1110 | 1491.25 | 1496.3 | 0.3 | 0.3 | 11.7 | 1502.6 | -6.2 |
| 99 | 1001 1101 | 1506.88 | 1523.9 | -0.4 | -0.4 | 27.6 | 1518.4 | 5.5 |
| 100 | 1001 1100 | 1522.50 | 1531.2 | -0.4 | 2.4 | 7.3 | 1534.2 | -3.0 |
| 101 | 1001 1011 | 1538.13 | 1549.7 | 0.4 | -0.1 | 18.4 | 1550.1 | -0.4 |
| 102 | 1001 1010 | 1553.75 | 1564.8 | 0.3 | 0.3 | 15.1 | 1565.9 | -1.2 |
| 103 | 1001 1001 | 1569.38 | 1587.4 | -0.1 | 0.3 | 22.6 | 1581.7 | 5.6 |
| 104 | 1001 1000 | 1585.00 | 1594.6 | -0.3 | -0.3 | 7.2 | 1597.6 | -3.0 |

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S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 442

981/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1)

HAC
TFST
S27

07 30 00

| RESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 :1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|-------------------|-------------------------|------------------------|---|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1610.1 | -0.4 | -0.4 | 15.5 | 1613.4 | -3.3 |
| 106 | 1001 0110 | 1616.25 | 1624.3 | 0.3 | 0.3 | 14.2 | 1629.3 | -5.0 |
| 107 | 1001 0101 | 1631.88 | 1646.8 | 0.3 | 0.2 | 22.5 | 1645.1 | 1.7 |
| 108 | 1001 0100 | 1647.50 | 1662.6 | -0.4 | 0.1 | 15.8 | 1660.9 | 1.7 |
| 109 | 1001 0011 | 1663.13 | 1675.2 | -0.6 | -0.5 | 12.6 | 1676.8 | -1.5 |
| 110 | 1001 0010 | 1678.75 | 1692.6 | -0.0 | -0.4 | 17.3 | 1692.6 | -0.0 |
| 111 | 1001 0001 | 1694.38 | 1713.0 | 0.3 | 0.3 | 20.5 | 1708.4 | 4.6 |
| 112 | 1001 0000 | 1710.00 | 1729.5 | 0.5 | 0.5 | 16.4 | 1724.3 | 5.2 |
| 113 | 1000 1111 | 1725.63 | 1735.4 | -0.3 | -0.3 | 5.9 | 1740.1 | -4.7 |
| 114 | 1000 1110 | 1741.25 | 1747.8 | -0.2 | -0.2 | 12.4 | 1755.9 | -8.2 |
| 115 | 1000 1101 | 1756.88 | 1774.8 | 0.4 | 0.0 | 27.0 | 1771.8 | 3.0 |
| 116 | 1000 1100 | 1772.50 | 1784.2 | 0.3 | 0.3 | 9.4 | 1787.6 | -3.4 |
| 117 | 1000 1011 | 1788.13 | 1800.8 | 0.0 | 0.3 | 16.6 | 1803.5 | -2.7 |
| 118 | 1000 1010 | 1803.75 | 1816.2 | -0.3 | -0.3 | 15.4 | 1819.3 | -3.1 |
| 119 | 1000 1001 | 1819.38 | 1838.7 | -0.3 | -0.2 | 22.5 | 1835.1 | 3.6 |
| 120 | 1000 1000 | 1835.00 | 1850.9 | 0.3 | 0.2 | 12.2 | 1851.0 | -0.0 |
| 121 | 1000 0111 | 1850.63 | 1860.7 | 0.4 | 0.4 | 9.8 | 1866.8 | -6.1 |
| 122 | 1000 0110 | 1866.25 | 1875.7 | -0.4 | -0.1 | 14.9 | 1882.6 | -7.0 |
| 123 | 1000 0101 | 1881.88 | 1897.9 | -0.3 | -0.4 | 22.3 | 1898.5 | -0.5 |
| 124 | 1000 0100 | 1897.50 | 1917.5 | 0.1 | -0.4 | 19.5 | 1914.3 | 3.2 |
| 125 | 1000 0011 | 1913.13 | 1925.7 | 0.5 | 0.5 | 8.2 | 1930.1 | -4.5 |
| 126 | 1000 0010 | 1928.75 | 1943.2 | 0.2 | 0.3 | 17.6 | 1946.0 | -2.7 |
| 127 | 1000 0001 | 1944.38 | 1964.2 | -0.4 | -0.3 | 20.9 | 1961.8 | 2.4 |
| 128 | 1000 0000 | 1960.00 | 1980.5 | -0.5 | -0.5 | 16.3 | 1977.7 | 2.8 |
| 129 | 0111 1111 | 1975.63 | 1990.1 | 0.4 | 0.0 | 9.6 | 1993.5 | -3.4 |
| 130 | 0111 1110 | 1991.25 | 2004.6 | 0.2 | 0.2 | 14.5 | 2009.3 | -4.7 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 443

1981/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1)

HAC
TEST
S27

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2030.1 | 0.0 | 0.4 | 25.4 | 2025.2 | 4.9 |
| 132 | 0111 1100 | 2022.50 | 2044.0 | -0.5 | -0.4 | 13.9 | 2041.0 | 3.0 |
| 133 | 0111 1011 | 2038.13 | 2055.6 | -0.4 | -0.5 | 11.6 | 2056.8 | -1.2 |
| 134 | 0111 1010 | 2053.75 | 2076.4 | -2.5 | 0.3 | 20.8 | 2072.7 | 3.8 |
| 135 | 0111 1001 | 2069.38 | 2095.2 | 0.3 | 0.3 | 18.8 | 2088.5 | 6.7 |
| 136 | 0111 1000 | 2085.00 | 2101.2 | -0.4 | -0.0 | 6.0 | 2104.3 | -3.1 |
| 137 | 0111 0111 | 2100.63 | 2116.5 | -0.5 | -0.4 | 15.3 | 2120.2 | -3.6 |
| 138 | 0111 0110 | 2116.25 | 2133.0 | 0.0 | -0.3 | 16.5 | 2136.0 | -3.0 |
| 139 | 0111 0101 | 2131.88 | 2155.5 | 0.3 | -0.2 | 22.5 | 2151.8 | 3.7 |
| 140 | 0111 0100 | 2147.50 | 2172.4 | 0.4 | 0.4 | 16.8 | 2167.7 | 4.7 |
| 141 | 0111 0011 | 2163.13 | 2181.1 | -0.4 | -0.4 | 8.7 | 2183.5 | -2.4 |
| 142 | 0111 0010 | 2178.75 | 2201.1 | -0.3 | -0.4 | 20.0 | 2199.4 | 1.7 |
| 143 | 0111 0001 | 2194.38 | 2220.9 | 0.4 | 0.0 | 19.8 | 2215.2 | 5.7 |
| 144 | 0111 0000 | 2210.00 | 2230.8 | 0.4 | 0.4 | 9.9 | 2231.0 | -0.2 |
| 145 | 0110 1111 | 2225.63 | 2241.6 | 0.0 | 0.4 | 10.8 | 2246.9 | -5.3 |
| 146 | 0110 1110 | 2241.25 | 2256.4 | -0.3 | -0.3 | 14.8 | 2262.7 | -6.3 |
| 147 | 0110 1101 | 2256.88 | 2282.1 | -0.4 | -0.4 | 25.7 | 2278.5 | 3.5 |
| 148 | 0110 1100 | 2272.50 | 2294.0 | 0.5 | 0.5 | 11.9 | 2294.4 | -0.3 |
| 149 | 0110 1011 | 2288.13 | 2306.8 | 0.5 | 0.5 | 12.7 | 2310.2 | -3.4 |
| 150 | 0110 1010 | 2303.75 | 2325.7 | -0.4 | 0.0 | 18.9 | 2326.0 | -0.3 |
| 151 | 0110 1001 | 2319.38 | 2346.7 | -0.4 | -0.3 | 21.0 | 2341.9 | 4.9 |
| 152 | 0110 1000 | 2335.00 | 2361.2 | 0.0 | -0.5 | 14.5 | 2357.7 | 3.5 |
| 153 | 0110 0111 | 2350.63 | 2367.5 | 0.4 | 0.4 | 6.2 | 2373.6 | -6.1 |
| 154 | 0110 0110 | 2366.25 | 2384.1 | 0.3 | 0.3 | 16.6 | 2389.4 | -5.3 |
| 155 | 0110 0101 | 2381.88 | 2406.5 | 0.1 | -0.1 | 22.4 | 2405.2 | 1.3 |
| 156 | 0110 0100 | 2397.50 | 2427.9 | -0.5 | -0.4 | 21.4 | 2421.1 | 6.9 |
| 157 | 0110 0011 | 2413.13 | 2432.0 | 0.4 | 0.1 | 4.1 | 2436.9 | -4.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 444

1981/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1)

HAC
TFST
S27

REV 30 78

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2452.0 | 0.4 | 0.4 | 20.0 | 2452.7 | -0.7 |
| 159 | 0110 0001 | 2444.38 | 2472.0 | -0.0 | 0.3 | 20.0 | 2468.6 | 3.4 |
| 160 | 0110 0000 | 2460.00 | 2478.1 | -0.4 | -0.4 | 6.1 | 2484.4 | -6.3 |
| 161 | 0101 1111 | 2475.63 | 2494.8 | -0.4 | -0.4 | 16.7 | 2500.2 | -5.4 |
| 162 | 0101 1110 | 2491.25 | 2508.3 | 0.3 | -0.1 | 13.4 | 2516.1 | -7.8 |
| 163 | 0101 1101 | 2506.88 | 2534.9 | 0.4 | 0.4 | 26.6 | 2531.9 | 3.0 |
| 164 | 0101 1100 | 2522.50 | 2544.2 | -0.5 | 0.0 | 9.3 | 2547.7 | -3.5 |
| 165 | 0101 1011 | 2538.13 | 2560.4 | -0.5 | -0.5 | 16.2 | 2563.6 | -3.2 |
| 166 | 0101 1010 | 2553.75 | 2577.2 | -0.0 | -0.4 | 16.8 | 2579.4 | -2.2 |
| 167 | 0101 1001 | 2569.38 | 2599.3 | 0.3 | 0.4 | 22.1 | 2595.3 | 4.1 |
| 168 | 0101 1000 | 2585.00 | 2607.0 | 0.3 | 0.3 | 7.7 | 2611.1 | -4.0 |
| 169 | 0101 0111 | 2600.63 | 2620.8 | -0.4 | -0.0 | 13.8 | 2626.9 | -6.1 |
| 170 | 0101 0110 | 2616.25 | 2636.6 | -0.4 | -0.4 | 15.8 | 2642.8 | -6.1 |
| 171 | 0101 0101 | 2631.88 | 2659.9 | 0.4 | 0.0 | 23.3 | 2658.6 | 1.3 |
| 172 | 0101 0100 | 2647.50 | 2676.5 | 0.4 | 0.5 | 16.5 | 2674.4 | 2.0 |
| 173 | 0101 0011 | 2663.13 | 2685.3 | -0.1 | 0.4 | 8.8 | 2690.3 | -5.0 |
| 174 | 0101 0010 | 2678.75 | 2704.6 | -0.3 | -0.3 | 19.3 | 2706.1 | -1.5 |
| 175 | 0101 0001 | 2694.38 | 2725.5 | -0.4 | -0.3 | 20.9 | 2721.9 | 3.5 |
| 176 | 0101 0000 | 2710.00 | 2740.0 | 0.5 | -0.0 | 14.5 | 2737.8 | 2.2 |
| 177 | 0100 1111 | 2725.63 | 2745.9 | 0.4 | 0.4 | 5.9 | 2753.6 | -7.7 |
| 178 | 0100 1110 | 2741.25 | 2760.0 | -0.3 | -0.0 | 14.1 | 2769.5 | -9.5 |
| 179 | 0100 1101 | 2756.88 | 2786.9 | -0.4 | -0.4 | 26.9 | 2785.3 | 1.6 |
| 180 | 0100 1100 | 2772.50 | 2798.1 | -0.1 | -0.4 | 11.2 | 2801.1 | -3.0 |
| 181 | 0100 1011 | 2788.13 | 2811.7 | 0.7 | 0.6 | 13.6 | 2817.0 | -5.3 |
| 182 | 0100 1010 | 2803.75 | 2828.6 | 0.4 | 0.4 | 16.9 | 2832.8 | -4.2 |
| 183 | 0100 1001 | 2819.38 | 2851.2 | -0.3 | 0.0 | 22.6 | 2848.6 | 2.6 |

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1-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 445

'81/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=1)

HAG
TGT
S27

REV 30

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2868.1 | -3.4 | -0.4 | 16.9 | 2864.5 | 3.6 |
| 185 | 0100 0111 | 2850.63 | 2872.0 | 0.4 | 0.0 | 3.9 | 2880.3 | -8.3 |
| 186 | 0100 0110 | 2866.25 | 2887.7 | 0.5 | 0.5 | 15.7 | 2896.1 | -8.5 |
| 187 | 0100 0101 | 2881.83 | 2911.6 | 0.0 | 0.3 | 23.9 | 2912.0 | -0.4 |
| 188 | 0100 0100 | 2897.50 | 2933.2 | -0.5 | -0.5 | 21.5 | 2927.8 | 5.3 |
| 189 | 0100 0011 | 2913.13 | 2937.3 | -0.3 | -0.4 | 4.2 | 2943.6 | -6.3 |
| 190 | 0100 0010 | 2928.75 | 2956.0 | 0.3 | -0.1 | 18.7 | 2959.5 | -3.5 |
| 191 | 0100 0001 | 2944.38 | 2976.8 | 0.3 | 0.3 | 20.7 | 2975.3 | 1.4 |
| 192 | 0100 0000 | 2960.00 | 2983.0 | -0.6 | -0.0 | 6.3 | 2991.2 | -8.1 |
| 193 | 0011 1111 | 2975.63 | 3001.0 | -0.4 | -0.4 | 17.9 | 3007.0 | -6.0 |
| 194 | 0011 1110 | 2991.25 | 3015.0 | -0.0 | -0.3 | 14.1 | 3022.8 | -7.8 |
| 195 | 0011 1101 | 3006.88 | 3041.5 | 0.3 | 0.4 | 26.4 | 3038.7 | 2.8 |
| 196 | 0011 1100 | 3022.50 | 3054.4 | 0.5 | 0.5 | 13.0 | 3054.5 | -0.1 |
| 197 | 0011 1011 | 3038.13 | 3066.8 | -0.6 | 0.1 | 12.4 | 3070.3 | -3.5 |
| 198 | 0011 1010 | 3053.75 | 3083.7 | -0.5 | -0.4 | 16.9 | 3086.2 | -2.4 |
| 199 | 0011 1001 | 3069.38 | 3106.7 | 0.3 | 0.1 | 23.0 | 3102.0 | 4.7 |
| 200 | 0011 1000 | 3085.00 | 3110.5 | 0.4 | 0.3 | 3.8 | 3117.8 | -7.4 |
| 201 | 0011 0111 | 3100.63 | 3127.3 | -0.1 | 0.4 | 16.8 | 3133.7 | -6.3 |
| 202 | 0011 0110 | 3116.25 | 3143.8 | -0.4 | -0.3 | 16.5 | 3149.5 | -5.7 |
| 203 | 0011 0101 | 3131.88 | 3167.9 | -0.5 | -0.4 | 24.0 | 3165.4 | 2.5 |
| 204 | 0011 0100 | 3147.50 | 3183.0 | 0.5 | 0.0 | 15.1 | 3181.2 | 1.8 |
| 205 | 0011 0011 | 3163.13 | 3192.6 | 0.3 | 0.4 | 9.6 | 3197.0 | -4.5 |
| 206 | 0011 0010 | 3178.75 | 3213.7 | -0.4 | 0.0 | 21.1 | 3212.9 | 0.8 |
| 207 | 0011 0001 | 3194.38 | 3233.6 | -0.4 | -0.4 | 19.9 | 3228.7 | 4.9 |
| 208 | 0011 0000 | 3210.00 | 3240.1 | -0.0 | -0.5 | 6.4 | 3244.5 | -4.5 |
| 209 | 0010 1111 | 3225.63 | 3253.7 | 0.4 | 0.4 | 13.6 | 3260.4 | -6.7 |

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S-236 THEMATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 446

981/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1)

HAC
TFST
S27

NOV 30 81

| RESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|-------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3267.9 | 0.3 | 0.3 | 14.3 | 3276.2 | -8.3 |
| 211 | 0010 1101 | 3256.88 | 3295.3 | -0.6 | 0.0 | 27.4 | 3292.0 | 3.3 |
| 212 | 0010 1100 | 3272.50 | 3305.6 | -0.5 | -0.4 | 10.2 | 3307.9 | -2.3 |
| 213 | 0010 1011 | 3288.13 | 3320.5 | 0.5 | 0.1 | 14.9 | 3323.7 | -3.2 |
| 214 | 0010 1010 | 3303.75 | 3337.0 | 0.4 | 0.4 | 16.4 | 3339.5 | -2.6 |
| 215 | 0010 1001 | 3319.38 | 3360.4 | -0.3 | 0.3 | 23.4 | 3355.4 | 5.0 |
| 216 | 0010 1000 | 3335.00 | 3373.0 | -0.5 | -0.5 | 12.6 | 3371.2 | 1.8 |
| 217 | 0010 0111 | 3350.63 | 3381.3 | -0.4 | -0.4 | 8.3 | 3387.1 | -5.8 |
| 218 | 0010 0110 | 3366.25 | 3397.2 | 0.2 | -0.0 | 15.9 | 3402.9 | -5.7 |
| 219 | 0010 0101 | 3381.88 | 3421.3 | 0.3 | 0.4 | 24.1 | 3418.7 | 2.6 |
| 220 | 0010 0100 | 3397.50 | 3440.9 | -0.6 | 0.1 | 19.6 | 3434.6 | 6.3 |
| 221 | 0010 0011 | 3413.13 | 3446.9 | -0.5 | -0.5 | 6.0 | 3450.4 | -3.5 |
| 222 | 0010 0010 | 3428.75 | 3466.3 | -0.1 | -0.3 | 19.3 | 3466.2 | 0.0 |
| 223 | 0010 0001 | 3444.38 | 3487.1 | 0.3 | 0.4 | 20.9 | 3482.1 | 5.1 |
| 224 | 0010 0000 | 3460.00 | 3490.6 | 0.4 | 0.4 | 3.4 | 3497.9 | -7.3 |
| 225 | 0001 1111 | 3475.63 | 3509.8 | -0.5 | -0.0 | 19.2 | 3513.7 | -3.9 |
| 226 | 0001 1110 | 3491.25 | 3523.4 | -0.4 | -0.4 | 13.6 | 3529.6 | -6.2 |
| 227 | 0001 1101 | 3506.88 | 3551.0 | 0.3 | -1.1 | 27.6 | 3545.4 | 5.6 |
| 228 | 0001 1100 | 3522.50 | 3557.7 | 0.4 | 0.4 | 6.7 | 3561.3 | -3.5 |
| 229 | 0001 1011 | 3538.13 | 3576.8 | -0.1 | 0.4 | 19.1 | 3577.1 | -0.3 |
| 230 | 0001 1010 | 3553.75 | 3592.3 | -0.5 | -0.4 | 15.5 | 3592.9 | -0.6 |
| 231 | 0001 1001 | 3569.38 | 3617.1 | -0.5 | -0.4 | 24.7 | 3608.8 | 8.3 |
| 232 | 0001 1000 | 3585.00 | 3622.2 | 0.4 | -0.0 | 5.1 | 3624.6 | -2.4 |
| 233 | 0001 0111 | 3600.63 | 3637.3 | 0.4 | 0.4 | 15.1 | 3640.4 | -3.1 |
| 234 | 0001 0110 | 3616.25 | 3653.3 | -0.4 | 0.0 | 16.0 | 3656.3 | -3.0 |
| 235 | 0001 0101 | 3631.88 | 3678.2 | -0.1 | 0.0 | 24.9 | 3672.1 | 6.1 |
| 236 | 0001 0100 | 3647.50 | 3693.4 | -0.1 | -0.4 | 15.2 | 3687.9 | 5.5 |

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3-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 447

081/11/30 13:46:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1) 11/30/81



| THRESHOLD
NUMBER | A/D
THRESHOLD | OUTPUT
(MV) | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|----------------|------------------------|---------------------------|---------------------|-------|------------------------------------|------------------------|-----------|
| | | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| | | | | | LEVELS RATIO= 1 : 1 | | | | |
| 237 | 0001 0011 | 3663.13 | 3703.4 | 0.5 | 0.5 | 9.9 | 3703.8 | -0.4 | |
| 238 | 0001 0010 | 3678.75 | 3723.0 | 0.3 | 0.4 | 19.6 | 3719.6 | 3.4 | |
| 239 | 0001 0001 | 3694.38 | 3744.5 | -0.4 | -0.4 | 21.5 | 3735.4 | 7.0 | |
| 240 | 0001 0000 | 3710.00 | 3761.7 | -0.6 | -0.5 | 17.3 | 3751.3 | 10.5 | |
| 241 | 0000 1111 | 3725.63 | 3764.8 | 0.4 | 0.0 | 3.1 | 3767.1 | -2.3 | |
| 242 | 0000 1110 | 3741.25 | 3778.3 | 0.3 | 0.4 | 13.5 | 3783.0 | -4.6 | |
| 243 | 0000 1101 | 3756.88 | 3806.6 | -0.1 | 0.5 | 28.3 | 3798.8 | 7.8 | |
| 244 | 0000 1100 | 3772.50 | 3816.2 | -0.6 | -0.5 | 9.6 | 3814.6 | 1.6 | |
| 245 | 0000 1011 | 3788.13 | 3832.9 | -0.5 | -0.4 | 16.6 | 3830.5 | 2.4 | |
| 246 | 0000 1010 | 3803.75 | 3847.7 | 0.4 | 0.5 | 14.8 | 3846.3 | 1.4 | |
| 247 | 0000 1001 | 3819.38 | 3872.5 | 0.2 | 0.3 | 24.7 | 3862.1 | 10.3 | |
| 248 | 0000 1000 | 3835.00 | 3883.8 | -0.4 | -0.0 | 11.4 | 3878.0 | 5.9 | |
| 249 | 0000 0111 | 3850.63 | 3893.6 | -0.5 | -0.4 | 9.8 | 3893.8 | -0.2 | |
| 250 | 0000 0110 | 3866.25 | 3909.2 | -0.1 | -0.4 | 15.5 | 3909.6 | -0.5 | |
| 251 | 0000 0101 | 3881.88 | 3934.3 | 0.3 | 0.5 | 25.2 | 3925.5 | 8.8 | |
| 252 | 0000 0100 | 3897.50 | 3953.8 | 0.4 | 0.5 | 19.4 | 3941.3 | 12.4 | |
| 253 | 0000 0011 | 3913.13 | 3960.3 | -0.7 | -0.7 | 6.5 | 3957.2 | 3.1 | |
| 254 | 0000 0010 | 3928.75 | 3978.6 | -0.5 | -0.4 | 18.3 | 3973.0 | 5.6 | |
| 255 | 0000 0001 | 3944.38 | 4000.4 | 0.2 | -0.1 | 21.8 | 3988.8 | 11.6 | |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 448

1981/11/30 13:57:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=2) 10/30/81
S U M M A R Y

HAC
TEST
S27

HECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
IE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.841X - 41.9MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.382%

OFFSET IS: -41.9MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99990360$

ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.640MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.9MV | 243 | 15.912MV | 1.2MV | 200 | 6.010MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.7MV | 199 | -0.056MV | -2.6MV | 100 | .416MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 4.8MV | 220 | 0.054MV | -0.8MV | 15 | .541MV |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 449

1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2)



NOV 30 '81

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -31.5 | -1.8 | -0.1 | | -26.1 | -5.4 |
| 2 | 1111 1110 | -8.750 | -18.5 | 0.3 | 0.5 | 13.0 | -10.3 | -8.2 |
| 3 | 1111 1101 | 6.875 | 6.7 | 0.3 | 0.5 | 25.1 | 5.6 | 1.1 |
| 4 | 1111 1100 | 22.500 | 19.3 | -0.3 | 0.0 | 12.6 | 21.4 | -2.1 |
| 5 | 1111 1011 | 38.125 | 35.1 | -0.4 | -0.4 | 15.8 | 37.3 | -2.2 |
| 6 | 1111 1010 | 53.750 | 51.0 | -0.1 | -0.4 | 16.0 | 53.1 | -2.1 |
| 7 | 1111 1001 | 69.375 | 74.0 | 0.4 | 0.4 | 22.9 | 68.9 | 5.0 |
| 8 | 1111 1000 | 85.000 | 78.7 | 0.0 | 0.5 | 4.7 | 84.3 | -6.1 |
| 9 | 1111 0111 | 100.625 | 96.1 | -0.4 | -0.3 | 17.5 | 100.6 | -4.5 |
| 10 | 1111 0110 | 116.250 | 112.0 | -0.5 | -0.3 | 15.8 | 116.5 | -4.5 |
| 11 | 1111 0101 | 131.875 | 134.5 | 0.3 | 0.0 | 22.5 | 132.3 | 2.2 |
| 12 | 1111 0100 | 147.500 | 150.2 | 0.3 | 0.4 | 15.6 | 148.2 | 2.0 |
| 13 | 1111 0011 | 163.125 | 162.0 | -0.0 | 0.4 | 11.8 | 164.0 | -2.0 |
| 14 | 1111 0010 | 178.750 | 181.1 | -0.4 | -0.3 | 19.1 | 179.8 | 1.2 |
| 15 | 1111 0001 | 194.375 | 201.2 | -0.2 | -0.8 | 20.1 | 195.7 | 5.5 |
| 16 | 1111 0000 | 210.000 | 208.0 | 0.4 | 0.4 | 6.8 | 211.5 | -3.6 |
| 17 | 1110 1111 | 225.625 | 223.2 | 0.3 | 0.4 | 15.3 | 227.4 | -4.1 |
| 18 | 1110 1110 | 241.250 | 236.8 | -0.5 | -0.0 | 13.6 | 243.2 | -6.3 |
| 19 | 1110 1101 | 256.875 | 261.9 | -0.5 | -0.4 | 25.0 | 259.0 | 2.9 |
| 20 | 1110 1100 | 272.500 | 274.8 | -0.0 | -0.3 | 12.9 | 274.9 | -0.1 |
| 21 | 1110 1011 | 288.125 | 289.4 | 0.4 | 0.4 | 14.5 | 290.7 | -1.4 |
| 22 | 1110 1010 | 303.750 | 305.5 | -0.0 | 0.4 | 16.1 | 306.6 | -1.0 |
| 23 | 1110 1001 | 319.375 | 328.8 | -0.5 | -0.4 | 23.3 | 322.4 | 6.4 |
| 24 | 1110 1000 | 335.000 | 339.0 | -0.4 | -0.4 | 10.2 | 338.2 | 0.8 |
| 25 | 1110 0111 | 350.625 | 350.4 | 0.3 | 0.0 | 11.4 | 354.1 | -3.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 450
1981/11/30 13:52:55 PFNALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2) NOV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 26 | 1110 0110 | 366.250 | 366.3 0.3 0.4 | 15.9 | 369.9 -3.6 |
| 27 | 1110 0101 | 381.875 | 388.9 -0.1 0.4 | 22.6 | 385.8 3.1 |
| 28 | 1110 0100 | 397.500 | 408.6 -0.4 -0.3 | 19.7 | 401.6 7.0 |
| 29 | 1110 0011 | 413.125 | 416.7 -0.4 -0.3 | 8.1 | 417.4 -0.7 |
| 30 | 1110 0010 | 428.750 | 435.2 0.3 0.3 | 18.4 | 433.3 1.9 |
| 31 | 1110 0001 | 444.375 | 455.3 0.4 0.6 | 20.1 | 449.1 6.2 |
| 32 | 1110 0000 | 460.000 | 461.6 -0.5 0.0 | 6.2 | 465.0 -3.4 |
| 33 | 1101 1111 | 475.625 | 479.3 -0.4 -0.4 | 17.7 | 480.8 -1.5 |
| 34 | 1101 1110 | 491.250 | 491.6 -0.1 -0.4 | 12.3 | 496.7 -5.0 |
| 35 | 1101 1101 | 506.875 | 517.2 0.3 0.5 | 25.5 | 512.5 4.7 |
| 36 | 1101 1100 | 522.500 | 526.5 0.3 0.3 | 9.3 | 528.3 -1.8 |
| 37 | 1101 1011 | 538.125 | 545.3 -0.5 -0.4 | 18.8 | 544.2 1.2 |
| 38 | 1101 1010 | 553.750 | 560.4 -0.5 -0.3 | 15.0 | 560.0 0.4 |
| 39 | 1101 1001 | 569.375 | 584.0 0.3 0.0 | 23.6 | 575.9 8.1 |
| 40 | 1101 1000 | 585.000 | 590.8 0.4 0.5 | 6.8 | 591.7 -0.9 |
| 41 | 1101 0111 | 600.625 | 605.8 0.0 0.4 | 14.9 | 607.5 -1.8 |
| 42 | 1101 0110 | 616.250 | 621.0 -0.3 -0.3 | 15.2 | 623.4 -2.4 |
| 43 | 1101 0101 | 631.875 | 644.6 -0.4 -0.4 | 23.6 | 639.2 5.4 |
| 44 | 1101 0100 | 647.500 | 659.7 0.3 0.4 | 15.0 | 655.1 4.6 |
| 45 | 1101 0011 | 663.125 | 671.5 0.4 0.4 | 11.8 | 670.9 0.6 |
| 46 | 1101 0010 | 678.750 | 689.8 -0.5 0.0 | 18.3 | 686.7 3.0 |
| 47 | 1101 0001 | 694.375 | 711.1 -0.5 -0.4 | 21.3 | 702.6 8.5 |
| 48 | 1101 0000 | 710.000 | 723.7 0.0 -0.4 | 12.5 | 718.4 5.2 |
| 49 | 1100 1111 | 725.625 | 735.0 0.3 0.3 | 11.3 | 734.3 0.7 |
| 50 | 1100 1110 | 741.250 | 744.7 0.4 0.4 | 9.7 | 750.1 -5.4 |
| 51 | 1100 1101 | 756.875 | 771.0 -0.4 -0.4 | 26.3 | 766.0 5.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 451
 1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 782.9 | -0.5 | -0.4 | 11.9 | 781.8 | 1.1 |
| 53 | 1100 1011 | 788.125 | 798.1 | 0.3 | -0.0 | 15.2 | 797.6 | 0.5 |
| 54 | 1100 1010 | 803.750 | 813.3 | 0.3 | 0.4 | 15.2 | 813.5 | -0.2 |
| 55 | 1100 1001 | 819.375 | 836.8 | -0.1 | 0.4 | 23.5 | 829.3 | 7.4 |
| 56 | 1100 1000 | 835.000 | 849.8 | -0.5 | -0.5 | 13.1 | 845.2 | 4.7 |
| 57 | 1100 0111 | 850.625 | 858.9 | -0.4 | 1.4 | 9.1 | 861.0 | -2.1 |
| 58 | 1100 0110 | 866.250 | 873.4 | 0.3 | 0.4 | 14.5 | 876.8 | -3.4 |
| 59 | 1100 0101 | 881.875 | 896.8 | 0.3 | 0.4 | 23.3 | 892.7 | 4.1 |
| 60 | 1100 0100 | 897.500 | 916.0 | -0.4 | 0.1 | 19.2 | 908.5 | 7.5 |
| 61 | 1100 0011 | 913.125 | 924.2 | -0.4 | -0.3 | 8.2 | 924.4 | -0.1 |
| 62 | 1100 0010 | 928.750 | 942.1 | 0.0 | -0.4 | 17.9 | 940.2 | 1.9 |
| 63 | 1100 0001 | 944.375 | 962.8 | 0.3 | 0.3 | 20.6 | 956.0 | 6.7 |
| 64 | 1100 0000 | 960.000 | 974.1 | 0.3 | 0.3 | 11.3 | 971.9 | 2.2 |
| 65 | 1011 1111 | 975.625 | 987.5 | -0.4 | -0.4 | 13.4 | 987.7 | -0.2 |
| 66 | 1011 1110 | 991.250 | 999.8 | -0.4 | -0.3 | 12.3 | 1003.6 | -3.8 |
| 67 | 1011 1101 | 1006.88 | 1025.7 | 0.3 | 0.0 | 26.0 | 1019.4 | 6.3 |
| 68 | 1011 1100 | 1022.50 | 1037.2 | 0.5 | 0.4 | 11.5 | 1035.2 | 2.0 |
| 69 | 1011 1011 | 1038.13 | 1052.5 | 0.0 | 0.4 | 15.3 | 1051.1 | 1.5 |
| 70 | 1011 1010 | 1053.75 | 1067.9 | -0.3 | -0.4 | 15.4 | 1066.9 | 1.0 |
| 71 | 1011 1001 | 1069.38 | 1092.5 | -0.4 | -0.4 | 24.5 | 1082.8 | 9.7 |
| 72 | 1011 1000 | 1085.00 | 1094.7 | 0.4 | 0.4 | 2.3 | 1098.6 | -3.7 |
| 73 | 1011 0111 | 1100.63 | 1112.9 | 0.3 | 0.4 | 18.2 | 1114.5 | -1.5 |
| 74 | 1011 0110 | 1116.25 | 1128.3 | -0.4 | -0.1 | 15.3 | 1130.3 | -2.0 |
| 75 | 1011 0101 | 1131.88 | 1152.3 | -0.4 | -0.4 | 24.0 | 1146.1 | 6.2 |
| 76 | 1011 0100 | 1147.50 | 1165.7 | 0.0 | -0.4 | 13.3 | 1162.0 | 3.7 |
| 77 | 1011 0011 | 1163.13 | 1178.3 | 0.3 | 0.4 | 12.6 | 1177.8 | 0.5 |
| 78 | 1011 0010 | 1178.75 | 1196.1 | 0.4 | 0.4 | 17.8 | 1193.7 | 2.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 452

1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2) HAC TEST 027

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1218.4 | -0.3 | -0.3 | 22.3 | 1209.5 | 8.9 |
| 80 | 1011 0000 | 1210.00 | 1227.5 | -0.4 | -0.4 | 9.1 | 1225.3 | 2.2 |
| 81 | 1010 1111 | 1225.63 | 1242.7 | 0.3 | -0.0 | 15.2 | 1241.2 | 1.5 |
| 82 | 1010 1110 | 1241.25 | 1251.2 | 0.4 | 0.4 | 8.5 | 1257.0 | -5.8 |
| 83 | 1010 1101 | 1256.88 | 1277.6 | 0.0 | 0.4 | 26.4 | 1272.9 | 4.8 |
| 84 | 1010 1100 | 1272.50 | 1288.2 | -0.4 | -0.4 | 10.6 | 1288.7 | -0.5 |
| 85 | 1010 1011 | 1288.13 | 1304.6 | -0.3 | -0.4 | 16.3 | 1304.5 | 0.0 |
| 86 | 1010 1010 | 1303.75 | 1319.4 | 0.3 | 0.4 | 14.8 | 1320.4 | -1.0 |
| 87 | 1010 1001 | 1319.38 | 1343.4 | 0.4 | 0.4 | 24.0 | 1336.2 | 7.2 |
| 88 | 1010 1000 | 1335.00 | 1351.9 | -0.4 | -0.0 | 8.5 | 1352.1 | -0.2 |
| 89 | 1010 0111 | 1350.63 | 1364.8 | -0.3 | -0.3 | 12.9 | 1367.9 | -3.1 |
| 90 | 1010 0110 | 1366.25 | 1379.8 | -0.0 | -0.4 | 14.9 | 1383.7 | -4.0 |
| 91 | 1010 0101 | 1381.88 | 1403.3 | 0.4 | 0.4 | 23.5 | 1399.6 | 3.7 |
| 92 | 1010 0100 | 1397.50 | 1420.6 | 0.4 | 0.4 | 17.3 | 1415.4 | 5.2 |
| 93 | 1010 0011 | 1413.13 | 1430.0 | -0.4 | -0.4 | 9.4 | 1431.3 | -1.2 |
| 94 | 1010 0010 | 1428.75 | 1447.9 | -0.3 | -0.3 | 17.8 | 1447.1 | 0.8 |
| 95 | 1010 0001 | 1444.38 | 1469.2 | 0.3 | 0.0 | 21.4 | 1463.0 | 6.3 |
| 96 | 1010 0000 | 1460.00 | 1479.7 | 0.4 | 0.5 | 10.5 | 1478.8 | 0.9 |
| 97 | 1001 1111 | 1475.63 | 1495.5 | -0.0 | 0.4 | 15.7 | 1494.6 | 0.8 |
| 98 | 1001 1110 | 1491.25 | 1503.5 | -0.3 | -0.3 | 8.1 | 1510.5 | -6.9 |
| 99 | 1001 1101 | 1506.88 | 1530.6 | -0.4 | -0.4 | 27.1 | 1526.3 | 4.3 |
| 100 | 1001 1100 | 1522.50 | 1540.0 | -2.6 | 0.2 | 9.4 | 1542.2 | -2.1 |
| 101 | 1001 1011 | 1538.13 | 1557.1 | 0.3 | 0.3 | 17.1 | 1558.0 | -0.9 |
| 102 | 1001 1010 | 1553.75 | 1571.5 | -0.4 | 0.0 | 14.4 | 1573.8 | -2.3 |
| 103 | 1001 1001 | 1569.38 | 1596.6 | -0.5 | -0.4 | 25.0 | 1589.7 | 6.9 |
| 104 | 1001 1000 | 1585.00 | 1601.4 | -0.1 | -0.5 | 4.9 | 1605.5 | -4.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 453
1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 105 | 1001 0111 | 1600.63 | 1617.4 0.3 0.3 | 16.0 | 1621.4 -4.0 |
| 106 | 1001 0110 | 1616.25 | 1631.4 0.4 0.3 | 14.0 | 1637.2 -5.8 |
| 107 | 1001 0101 | 1631.88 | 1656.6 -0.4 -0.4 | 25.2 | 1653.0 3.6 |
| 108 | 1001 0100 | 1647.50 | 1669.6 -0.3 -0.3 | 12.9 | 1668.9 0.7 |
| 109 | 1001 0011 | 1663.13 | 1682.6 0.3 0.0 | 13.0 | 1684.7 -2.2 |
| 110 | 1001 0010 | 1678.75 | 1699.6 0.3 0.3 | 17.0 | 1700.6 -1.0 |
| 111 | 1001 0001 | 1694.38 | 1722.0 -0.1 0.4 | 22.4 | 1716.4 5.6 |
| 112 | 1001 0000 | 1710.00 | 1737.2 -0.4 -0.4 | 15.1 | 1732.2 4.9 |
| 113 | 1000 1111 | 1725.63 | 1747.1 -0.4 -0.4 | 9.9 | 1748.1 -1.0 |
| 114 | 1000 1110 | 1741.25 | 1754.6 0.4 0.3 | 7.5 | 1763.9 -9.3 |
| 115 | 1000 1101 | 1756.88 | 1781.4 0.5 0.5 | 26.8 | 1779.8 1.7 |
| 116 | 1000 1100 | 1772.50 | 1791.5 -0.4 0.0 | 10.1 | 1795.6 -4.1 |
| 117 | 1000 1011 | 1788.13 | 1808.8 -0.4 -0.4 | 17.3 | 1811.5 -2.6 |
| 118 | 1000 1010 | 1803.75 | 1823.1 -0.0 -0.4 | 14.3 | 1827.3 -4.2 |
| 119 | 1000 1001 | 1819.38 | 1847.3 0.4 0.4 | 24.2 | 1843.1 4.2 |
| 120 | 1000 1000 | 1835.00 | 1859.2 0.5 0.4 | 11.8 | 1859.0 0.2 |
| 121 | 1000 0111 | 1850.63 | 1869.0 -0.3 3.5 | 9.9 | 1874.8 -5.8 |
| 122 | 1000 0110 | 1866.25 | 1882.9 -0.4 -0.3 | 13.9 | 1890.7 -7.7 |
| 123 | 1000 0101 | 1881.88 | 1907.6 0.4 0.0 | 24.7 | 1906.5 1.1 |
| 124 | 1000 0100 | 1897.50 | 1924.3 0.4 0.4 | 16.6 | 1922.3 2.0 |
| 125 | 1000 0011 | 1913.13 | 1933.6 0.0 0.3 | 9.3 | 1938.2 -4.6 |
| 126 | 1000 0010 | 1928.75 | 1951.1 -0.3 -0.3 | 17.5 | 1954.0 -2.9 |
| 127 | 1000 0001 | 1944.38 | 1973.3 -0.3 -0.3 | 22.2 | 1969.9 3.5 |
| 128 | 1000 0000 | 1960.00 | 1982.5 0.5 0.5 | 9.2 | 1985.7 -3.2 |
| 129 | 0111 1111 | 1975.63 | 1997.6 0.4 0.4 | 15.1 | 2001.5 -3.9 |
| 130 | 0111 1110 | 1991.25 | 2012.0 -0.5 0.0 | 14.3 | 2017.4 -5.4 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 454

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2)

HAC
TEST
S27

11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2038.4 | -0.6 | -0.6 | 26.5 | 2033.2 | 5.2 |
| 132 | 0111 1100 | 2022.50 | 2051.9 | 0.0 | -0.4 | 13.4 | 2049.1 | 2.8 |
| 133 | 0111 1011 | 2038.13 | 2063.2 | 0.4 | 0.4 | 11.3 | 2064.9 | -1.7 |
| 134 | 0111 1010 | 2053.75 | 2079.8 | 0.5 | 0.7 | 16.6 | 2080.7 | -0.9 |
| 135 | 0111 1001 | 2069.38 | 2104.8 | -0.4 | -0.4 | 24.9 | 2096.6 | 8.2 |
| 136 | 0111 1000 | 2085.00 | 2107.7 | -0.4 | -0.7 | 2.9 | 2112.4 | -4.8 |
| 137 | 0111 0111 | 2100.63 | 2123.5 | 0.4 | -0.1 | 15.8 | 2128.3 | -4.8 |
| 138 | 0111 0110 | 2116.25 | 2140.0 | 0.3 | 0.4 | 16.5 | 2144.1 | -4.1 |
| 139 | 0111 0101 | 2131.88 | 2163.8 | 0.0 | 0.5 | 23.8 | 2160.0 | 3.8 |
| 140 | 0111 0100 | 2147.50 | 2180.6 | -0.4 | -0.3 | 16.8 | 2175.8 | 4.8 |
| 141 | 0111 0011 | 2163.13 | 2189.3 | -0.0 | -0.5 | 8.7 | 2191.6 | -2.3 |
| 142 | 0111 0010 | 2178.75 | 2208.2 | 0.4 | 0.4 | 18.9 | 2207.5 | 0.7 |
| 143 | 0111 0001 | 2194.38 | 2228.9 | 0.4 | 0.5 | 20.8 | 2223.3 | 5.6 |
| 144 | 0111 0000 | 2210.00 | 2239.3 | -0.4 | 0.0 | 10.3 | 2239.2 | 0.1 |
| 145 | 0110 1111 | 2225.63 | 2249.9 | -0.4 | -0.3 | 10.6 | 2255.0 | -5.1 |
| 146 | 0110 1110 | 2241.25 | 2263.8 | -0.1 | -0.5 | 13.9 | 2270.8 | -7.1 |
| 147 | 0110 1101 | 2256.88 | 2289.5 | 0.5 | 0.5 | 25.7 | 2286.7 | 2.8 |
| 148 | 0110 1100 | 2272.50 | 2301.0 | -0.0 | 0.4 | 11.5 | 2302.5 | -1.6 |
| 149 | 0110 1011 | 2288.13 | 2315.3 | -0.4 | -0.4 | 14.3 | 2318.4 | -3.1 |
| 150 | 0110 1010 | 2303.75 | 2332.0 | -0.5 | -0.4 | 16.7 | 2334.2 | -2.2 |
| 151 | 0110 1001 | 2319.38 | 2355.9 | 0.3 | -0.0 | 23.9 | 2350.0 | 5.8 |
| 152 | 0110 1000 | 2335.00 | 2363.8 | 0.3 | 0.4 | 7.9 | 2365.9 | -2.1 |
| 153 | 0110 0111 | 2350.63 | 2375.1 | -0.0 | 0.4 | 11.3 | 2381.7 | -6.6 |
| 154 | 0110 0110 | 2366.25 | 2391.9 | -0.3 | -0.3 | 16.8 | 2397.6 | -5.7 |
| 155 | 0110 0101 | 2381.88 | 2415.7 | -0.0 | -0.4 | 23.8 | 2413.4 | 2.3 |
| 156 | 0110 0100 | 2397.50 | 2434.5 | 0.4 | 0.4 | 18.7 | 2429.2 | 5.2 |
| 157 | 0110 0011 | 2413.13 | 2440.4 | 0.4 | 0.4 | 5.9 | 2445.1 | -4.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 455

1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2)

HAC
TEST
527

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|---------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2460.2 | -0.5 | 0.0 | 19.8 | 2460.9 | -0.7 |
| 159 | 0110 0001 | 2444.38 | 2481.8 | -0.4 | -0.4 | 21.6 | 2476.8 | 5.1 |
| 160 | 0110 0000 | 2460.00 | 2488.0 | -0.1 | -0.6 | 6.2 | 2492.6 | -4.6 |
| 161 | 0101 1111 | 2475.63 | 2502.9 | 0.4 | 0.5 | 14.9 | 2508.5 | -5.5 |
| 162 | 0101 1110 | 2491.25 | 2515.6 | -0.1 | 0.3 | 12.7 | 2524.3 | -8.7 |
| 163 | 0101 1101 | 2506.88 | 2542.7 | -0.5 | -0.5 | 27.1 | 2540.1 | 2.6 |
| 164 | 0101 1100 | 2522.50 | 2556.9 | -0.5 | -0.4 | 14.1 | 2556.0 | 0.9 |
| 165 | 0101 1011 | 2538.13 | 2567.9 | 0.4 | -0.0 | 11.1 | 2571.8 | -3.9 |
| 166 | 0101 1010 | 2553.75 | 2584.1 | 0.3 | 0.3 | 16.2 | 2587.7 | -3.5 |
| 167 | 0101 1001 | 2569.38 | 2608.9 | 0.0 | 0.4 | 24.8 | 2603.5 | 5.4 |
| 168 | 0101 1000 | 2585.00 | 2614.3 | -0.5 | -0.4 | 5.4 | 2619.3 | -5.0 |
| 169 | 0101 0111 | 2600.63 | 2628.6 | -0.4 | -0.4 | 14.3 | 2635.2 | -6.5 |
| 170 | 0101 0110 | 2616.25 | 2643.8 | 0.4 | 0.4 | 15.2 | 2651.0 | -7.2 |
| 171 | 0101 0101 | 2631.88 | 2669.1 | 0.5 | 0.5 | 25.3 | 2666.9 | 2.2 |
| 172 | 0101 0100 | 2647.50 | 2684.8 | -0.4 | 0.1 | 15.7 | 2682.7 | 2.1 |
| 173 | 0101 0011 | 2663.13 | 2694.1 | -0.5 | -0.5 | 9.2 | 2698.5 | -4.5 |
| 174 | 0101 0010 | 2678.75 | 2712.5 | -0.1 | -0.4 | 18.5 | 2714.4 | -1.8 |
| 175 | 0101 0001 | 2694.38 | 2734.5 | 0.5 | 0.5 | 22.0 | 2730.2 | 4.3 |
| 176 | 0101 0000 | 2710.00 | 2747.5 | 0.4 | 0.4 | 13.0 | 2746.1 | 1.4 |
| 177 | 0100 1111 | 2725.63 | 2755.1 | -0.4 | -0.4 | 7.6 | 2761.9 | -6.8 |
| 178 | 0100 1110 | 2741.25 | 2767.7 | -0.5 | -0.4 | 12.6 | 2777.7 | -10.0 |
| 179 | 0100 1101 | 2756.88 | 2793.9 | 0.4 | 0.0 | 26.2 | 2793.6 | 0.3 |
| 180 | 0100 1100 | 2772.50 | 2804.9 | 0.4 | 0.4 | 11.0 | 2809.4 | -4.6 |
| 181 | 0100 1011 | 2788.13 | 2819.7 | -0.0 | 0.4 | 14.8 | 2825.3 | -5.5 |
| 182 | 0100 1010 | 2803.75 | 2835.9 | -0.4 | -0.4 | 16.2 | 2841.1 | -5.2 |
| 183 | 0100 1001 | 2819.38 | 2860.9 | -0.4 | 0.6 | 25.0 | 2857.0 | 4.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 456

1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2)

REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2871.5 | 0.6 | 0.6 | 10.6 | 2872.8 | -1.3 |
| 185 | 0100 0111 | 2850.63 | 2880.1 | 0.4 | 0.4 | 8.6 | 2888.6 | -8.5 |
| 186 | 0100 0110 | 2866.25 | 2896.0 | -0.5 | -0.1 | 15.9 | 2904.5 | -8.4 |
| 187 | 0100 0101 | 2881.88 | 2921.3 | -0.5 | -0.4 | 25.3 | 2920.3 | 1.0 |
| 188 | 0100 0100 | 2897.50 | 2935.4 | 0.0 | -0.4 | 14.1 | 2936.2 | -0.7 |
| 189 | 0100 0011 | 2913.13 | 2945.4 | 0.4 | 0.5 | 10.0 | 2952.0 | -6.6 |
| 190 | 0100 0010 | 2928.75 | 2964.0 | -0.1 | 0.4 | 18.5 | 2967.8 | -3.9 |
| 191 | 0100 0001 | 2944.38 | 2986.6 | -0.4 | -0.2 | 22.6 | 2983.7 | 2.9 |
| 192 | 0100 0000 | 2960.00 | 2998.6 | -0.1 | -0.1 | 12.0 | 2999.5 | -1.0 |
| 193 | 0011 1111 | 2975.63 | 3009.3 | 0.4 | 0.0 | 10.8 | 3015.4 | -6.0 |
| 194 | 0011 1110 | 2991.25 | 3022.3 | 0.3 | 0.3 | 13.0 | 3031.2 | -8.9 |
| 195 | 0011 1101 | 3006.88 | 3049.1 | -0.1 | 0.6 | 26.8 | 3047.0 | 2.1 |
| 196 | 0011 1100 | 3022.50 | 3062.0 | -0.4 | -0.4 | 12.9 | 3062.9 | -0.8 |
| 197 | 0011 1011 | 3038.13 | 3075.1 | -0.0 | -0.4 | 13.0 | 3078.7 | -3.6 |
| 198 | 0011 1010 | 3053.75 | 3090.7 | 0.4 | 0.4 | 15.6 | 3094.6 | -3.8 |
| 199 | 0011 1001 | 3069.38 | 3116.7 | 0.7 | 0.7 | 26.0 | 3110.4 | 6.3 |
| 200 | 0011 1000 | 3085.00 | 3117.9 | -0.5 | -0.0 | 1.2 | 3126.2 | -8.3 |
| 201 | 0011 0111 | 3100.63 | 3135.7 | -0.5 | -0.4 | 17.8 | 3142.1 | -6.3 |
| 202 | 0011 0110 | 3116.25 | 3151.7 | -0.0 | -0.4 | 16.0 | 3157.9 | -6.2 |
| 203 | 0011 0101 | 3131.88 | 3176.8 | 0.4 | 0.5 | 25.1 | 3173.8 | 3.0 |
| 204 | 0011 0100 | 3147.50 | 3191.5 | -0.0 | 0.3 | 14.6 | 3189.6 | 1.8 |
| 205 | 0011 0011 | 3163.13 | 3201.6 | -0.5 | -0.4 | 10.1 | 3205.5 | -3.8 |
| 206 | 0011 0010 | 3178.75 | 3220.4 | -0.6 | -0.4 | 18.8 | 3221.3 | -0.9 |
| 207 | 0011 0001 | 3194.38 | 3243.0 | 0.3 | -0.0 | 22.5 | 3237.1 | 5.8 |
| 208 | 0011 0000 | 3210.00 | 3253.1 | 0.4 | 0.5 | 10.2 | 3253.0 | 0.2 |
| 209 | 0010 1111 | 3225.63 | 3262.7 | -0.1 | 0.4 | 9.6 | 3268.8 | -6.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL... FLT. S/N 3 PAGE 457

1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=2) NOV 30 '81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3276.1 | -0.4 | -0.3 | 13.3 | 3284.7 | -8.6 |
| 211 | 0010 1101 | 3256.88 | 3303.1 | -0.1 | -0.4 | 27.0 | 3300.5 | 2.6 |
| 212 | 0010 1100 | 3272.50 | 3312.6 | 0.4 | 0.4 | 9.5 | 3316.3 | -3.7 |
| 213 | 0010 1011 | 3288.13 | 3328.4 | 0.4 | 0.4 | 15.8 | 3332.2 | -3.8 |
| 214 | 0010 1010 | 3303.75 | 3345.3 | -0.5 | 0.0 | 16.9 | 3348.0 | -2.8 |
| 215 | 0010 1001 | 3319.38 | 3371.4 | -0.6 | -0.5 | 26.2 | 3363.9 | 7.6 |
| 216 | 0010 1000 | 3335.00 | 3377.0 | -0.1 | -0.4 | 5.5 | 3379.7 | -2.7 |
| 217 | 0010 0111 | 3350.63 | 3389.5 | 0.2 | 0.2 | 12.5 | 3395.5 | -6.1 |
| 218 | 0010 0110 | 3366.25 | 3405.2 | -0.1 | 0.4 | 15.7 | 3411.4 | -6.2 |
| 219 | 0010 0101 | 3381.88 | 3431.2 | -0.6 | -0.4 | 26.0 | 3427.2 | 4.0 |
| 220 | 0010 0100 | 3397.50 | 3444.0 | -0.5 | 4.8 | 12.7 | 3443.1 | 0.9 |
| 221 | 0010 0011 | 3413.13 | 3455.3 | 0.4 | 0.0 | 11.3 | 3458.9 | -3.6 |
| 222 | 0010 0010 | 3428.75 | 3474.2 | 0.3 | 0.4 | 18.9 | 3474.7 | -0.5 |
| 223 | 0010 0001 | 3444.38 | 3496.9 | -0.1 | 0.5 | 22.7 | 3490.6 | 6.3 |
| 224 | 0010 0000 | 3460.00 | 3508.6 | -0.6 | -0.6 | 11.7 | 3506.4 | 2.2 |
| 225 | 0001 1111 | 3475.63 | 3524.4 | -0.1 | -0.4 | 15.8 | 3522.3 | 2.2 |
| 226 | 0001 1110 | 3491.25 | 3530.9 | 0.4 | 0.5 | 6.4 | 3538.1 | -7.2 |
| 227 | 0001 1101 | 3506.88 | 3558.6 | 0.4 | 0.6 | 27.7 | 3554.0 | 4.6 |
| 228 | 0001 1100 | 3522.50 | 3571.9 | -0.5 | 0.0 | 13.3 | 3569.8 | 2.1 |
| 229 | 0001 1011 | 3538.13 | 3585.1 | -0.6 | -0.4 | 13.2 | 3585.6 | -0.5 |
| 230 | 0001 1010 | 3553.75 | 3600.2 | -0.1 | -0.5 | 15.1 | 3601.5 | -1.3 |
| 231 | 0001 1001 | 3569.38 | 3627.1 | 0.3 | 0.5 | 26.9 | 3617.3 | 9.8 |
| 232 | 0001 1000 | 3585.00 | 3629.7 | -0.1 | 0.3 | 2.5 | 3633.2 | -3.5 |
| 233 | 0001 0111 | 3600.63 | 3646.9 | -0.6 | -0.4 | 17.2 | 3649.0 | -2.1 |
| 234 | 0001 0110 | 3616.25 | 3661.5 | -0.5 | -0.4 | 14.6 | 3664.8 | -3.4 |
| 235 | 0001 0101 | 3631.88 | 3687.3 | 0.4 | 0.0 | 25.8 | 3680.7 | 6.6 |
| 236 | 0001 0100 | 3647.50 | 3701.7 | 0.3 | 0.4 | 14.4 | 3696.5 | 5.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 458
1981/11/30 13:52:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=2)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3712.3 | -0.1 | 0.4 | 10.6 | 3712.4 | -0.1 |
| 238 | 0001 0010 | 3678.75 | 3730.7 | -0.4 | -0.4 | 18.5 | 3728.2 | 2.5 |
| 239 | 0001 0001 | 3694.38 | 3754.2 | -0.1 | -0.4 | 23.5 | 3744.0 | 10.2 |
| 240 | 0001 0000 | 3710.00 | 3769.2 | 0.4 | 0.5 | 15.0 | 3759.9 | 9.4 |
| 241 | 0000 1111 | 3725.63 | 3779.7 | 0.4 | 0.5 | 10.5 | 3775.7 | 4.0 |
| 242 | 0000 1110 | 3741.25 | 3787.0 | -0.5 | 0.0 | 7.3 | 3791.6 | -4.6 |
| 243 | 0000 1101 | 3756.88 | 3814.8 | -0.7 | -0.5 | 27.9 | 3807.4 | 7.4 |
| 244 | 0000 1100 | 3772.50 | 3824.2 | -0.1 | -0.4 | 9.3 | 3823.2 | 0.9 |
| 245 | 0000 1011 | 3788.13 | 3840.5 | 0.3 | 0.4 | 16.3 | 3839.1 | 1.4 |
| 246 | 0000 1010 | 3803.75 | 3856.2 | -0.2 | 0.4 | 15.7 | 3854.9 | 1.3 |
| 247 | 0000 1001 | 3819.38 | 3883.7 | -0.7 | -0.5 | 27.5 | 3870.8 | 12.9 |
| 248 | 0000 1000 | 3835.00 | 3892.6 | -0.6 | -0.6 | 8.9 | 3886.6 | 6.0 |
| 249 | 0000 0111 | 3850.63 | 3902.4 | 0.4 | 0.1 | 9.8 | 3902.5 | -0.0 |
| 250 | 0000 0110 | 3866.25 | 3917.1 | 0.3 | 0.4 | 14.7 | 3918.3 | -1.2 |
| 251 | 0000 0101 | 3881.88 | 3943.5 | -0.2 | 0.5 | 26.3 | 3934.1 | 9.3 |
| 252 | 0000 0100 | 3897.50 | 3956.5 | -0.4 | -0.4 | 13.0 | 3950.0 | 6.5 |
| 253 | 0000 0011 | 3913.13 | 3969.0 | -0.1 | -0.6 | 12.4 | 3965.8 | 3.1 |
| 254 | 0000 0010 | 3928.75 | 3986.7 | 0.3 | 0.5 | 17.8 | 3981.7 | 5.1 |
| 255 | 0000 0001 | 3944.38 | 4010.2 | 0.3 | 0.6 | 23.4 | 3997.5 | 12.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 459
 1981/11/30 13:59:18 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)
S U M M A R Y



NOV 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.851X - 42.4MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.449%

OFFSET IS: -42.4MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998760$

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.315MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.8MV | 243 | 15.915MV | 3.1MV | 200 | 5.448MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 3.2MV | 49 | -0.079MV | -5.8MV | 209 | .732MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 3.4V | 49 | 0.015MV | -2.7MV | 15 | .610MV |

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 460

1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|---------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| | | | | LEVELS RATIO= 1 : 1 | | | | |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -31.5 | -0.3 | -0.7 | | -26.6 | -4.9 |
| 2 | 1111 1110 | -8.750 | -17.0 | 0.4 | 0.5 | 14.5 | -10.7 | -6.3 |
| 3 | 1111 1101 | 6.875 | 6.2 | 1.4 | 1.5 | 23.2 | 5.1 | 1.1 |
| 4 | 1111 1100 | 22.500 | 19.3 | 0.0 | -0.1 | 13.1 | 21.0 | -1.6 |
| 5 | 1111 1011 | 38.125 | 34.8 | -0.9 | -0.7 | 15.5 | 36.8 | -2.0 |
| 6 | 1111 1010 | 53.750 | 51.8 | 0.5 | 0.0 | 16.9 | 52.7 | -0.9 |
| 7 | 1111 1001 | 69.375 | 73.2 | 0.2 | 0.3 | 21.4 | 68.5 | 4.7 |
| 8 | 1111 1000 | 85.000 | 79.1 | -0.0 | 0.2 | 5.9 | 84.4 | -5.2 |
| 9 | 1111 0111 | 100.625 | 96.0 | -0.9 | -0.8 | 16.8 | 100.2 | -4.2 |
| 10 | 1111 0110 | 116.250 | 113.5 | -0.7 | -0.6 | 17.6 | 116.1 | -2.5 |
| 11 | 1111 0101 | 131.875 | 133.7 | 0.3 | 0.5 | 20.2 | 131.9 | 1.8 |
| 12 | 1111 0100 | 147.500 | 149.7 | -0.0 | 0.0 | 16.0 | 147.8 | 1.9 |
| 13 | 1111 0011 | 163.125 | 162.1 | -0.9 | 0.0 | 12.4 | 163.6 | -1.5 |
| 14 | 1111 0010 | 178.750 | 182.5 | -0.7 | -0.6 | 20.3 | 179.5 | 3.0 |
| 15 | 1111 0001 | 194.375 | 200.8 | -0.0 | -2.7 | 18.3 | 195.3 | 5.5 |
| 16 | 1111 0000 | 210.000 | 209.5 | 0.6 | 0.5 | 8.6 | 211.2 | -1.7 |
| 17 | 1110 1111 | 225.625 | 222.5 | 0.6 | 0.7 | 13.0 | 227.0 | -4.5 |
| 18 | 1110 1110 | 241.250 | 238.3 | -0.6 | -0.5 | 15.8 | 242.9 | -4.6 |
| 19 | 1110 1101 | 256.875 | 262.3 | -1.6 | -1.4 | 24.0 | 258.7 | 3.6 |
| 20 | 1110 1100 | 272.500 | 274.5 | 0.1 | 0.0 | 12.2 | 274.6 | -0.1 |
| 21 | 1110 1011 | 288.125 | 288.7 | 0.9 | 0.9 | 14.1 | 290.4 | -1.8 |
| 22 | 1110 1010 | 303.750 | 306.7 | -0.1 | 0.7 | 18.1 | 306.3 | 0.5 |
| 23 | 1110 1001 | 319.375 | 327.7 | -0.2 | -0.2 | 21.0 | 322.1 | 5.6 |
| 24 | 1110 1000 | 335.000 | 338.3 | -0.3 | -0.3 | 10.5 | 338.0 | 0.3 |
| 25 | 1110 0111 | 350.625 | 349.6 | 0.8 | 0.8 | 11.3 | 353.8 | -4.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 461

1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=3)

HAC
TEST
S27

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-----------------|----------------------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS
LOWER | RATIO= 1 11
UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 367.5 | 0.4 | 0.6 | 17.9 | 369.7 | -2.2 |
| 27 | 1110 0101 | 381.875 | 388.2 | -0.4 | 0.1 | 20.7 | 385.5 | 2.7 |
| 28 | 1110 0100 | 397.500 | 408.6 | 0.0 | 0.1 | 20.3 | 401.4 | 7.2 |
| 29 | 1110 0011 | 413.125 | 416.6 | 0.0 | -0.8 | 8.0 | 417.2 | -0.7 |
| 30 | 1110 0010 | 428.750 | 436.3 | 0.5 | 0.6 | 19.8 | 433.1 | 3.2 |
| 31 | 1110 0001 | 444.375 | 454.2 | 0.7 | 0.7 | 17.8 | 448.9 | 5.2 |
| 32 | 1110 0000 | 460.000 | 460.9 | -0.5 | -0.5 | 6.7 | 464.8 | -3.9 |
| 33 | 1101 1111 | 475.625 | 478.8 | -0.6 | -0.6 | 17.9 | 480.6 | -1.8 |
| 34 | 1101 1110 | 491.250 | 492.6 | 0.5 | -0.0 | 13.7 | 496.5 | -3.9 |
| 35 | 1101 1101 | 506.875 | 516.6 | 1.3 | 1.4 | 24.0 | 512.4 | 4.2 |
| 36 | 1101 1100 | 522.500 | 526.6 | 0.0 | 2.6 | 10.0 | 528.2 | -1.6 |
| 37 | 1101 1011 | 538.125 | 545.2 | -1.0 | -1.0 | 18.6 | 544.1 | 1.1 |
| 38 | 1101 1010 | 553.750 | 562.5 | -1.2 | -1.4 | 17.3 | 559.9 | 2.6 |
| 39 | 1101 1001 | 569.375 | 583.0 | 0.1 | 0.2 | 20.5 | 575.8 | 7.3 |
| 40 | 1101 1000 | 585.000 | 591.1 | 0.2 | 0.2 | 8.1 | 591.6 | -0.5 |
| 41 | 1101 0111 | 600.625 | 605.8 | -0.8 | -0.0 | 14.7 | 607.5 | -1.7 |
| 42 | 1101 0110 | 616.250 | 622.6 | -0.7 | -0.7 | 16.8 | 623.3 | -0.7 |
| 43 | 1101 0101 | 631.875 | 643.2 | -0.0 | -0.1 | 20.5 | 639.2 | 4.0 |
| 44 | 1101 0100 | 647.500 | 659.4 | -0.0 | 0.0 | 16.2 | 655.0 | 4.4 |
| 45 | 1101 0011 | 663.125 | 670.8 | 0.9 | 0.9 | 11.4 | 670.9 | -0.1 |
| 46 | 1101 0010 | 678.750 | 691.1 | -0.6 | -0.5 | 20.3 | 686.7 | 4.3 |
| 47 | 1101 0001 | 694.375 | 709.9 | -0.2 | -0.1 | 18.9 | 702.6 | 7.4 |
| 48 | 1101 0000 | 710.000 | 722.6 | 0.6 | -0.1 | 12.7 | 718.4 | 4.2 |
| 49 | 1100 1111 | 725.625 | 731.7 | 3.2 | 3.3 | 9.0 | 734.3 | -2.6 |
| 50 | 1100 1110 | 741.250 | 746.0 | 0.0 | 0.6 | 14.3 | 750.1 | -4.1 |
| 51 | 1100 1101 | 756.875 | 771.2 | -1.2 | -1.3 | 25.2 | 766.0 | 5.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 462
 1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3) NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 782.7 | -0.1 | -0.1 | 11.5 | 781.8 | 0.9 |
| 53 | 1100 1011 | 788.125 | 797.3 | 1.0 | 0.9 | 14.6 | 797.7 | -0.4 |
| 54 | 1100 1010 | 803.750 | 814.3 | 0.8 | 0.9 | 17.0 | 813.5 | 0.8 |
| 55 | 1100 1001 | 819.375 | 835.9 | -0.2 | 0.1 | 21.5 | 829.4 | 6.5 |
| 56 | 1100 1000 | 835.000 | 849.6 | -0.3 | -0.3 | 13.7 | 845.2 | 4.4 |
| 57 | 1100 0111 | 850.625 | 858.4 | -0.0 | -0.6 | 8.8 | 861.1 | -2.7 |
| 58 | 1100 0110 | 866.250 | 874.7 | 0.6 | 0.6 | 16.2 | 876.9 | -2.3 |
| 59 | 1100 0101 | 881.875 | 895.4 | 0.1 | 0.1 | 20.8 | 892.8 | 2.6 |
| 60 | 1100 0100 | 897.500 | 915.3 | -0.1 | -0.1 | 19.9 | 908.6 | 6.7 |
| 61 | 1100 0011 | 913.125 | 924.1 | -0.9 | -0.9 | 8.7 | 924.5 | -0.4 |
| 62 | 1100 0010 | 928.750 | 942.9 | 0.5 | -0.0 | 18.8 | 940.3 | 2.6 |
| 63 | 1100 0001 | 944.375 | 961.8 | 0.1 | 0.2 | 18.9 | 956.2 | 5.6 |
| 64 | 1100 0000 | 960.000 | 974.8 | 0.0 | 0.0 | 12.9 | 972.0 | 2.7 |
| 65 | 1011 1111 | 975.625 | 987.2 | -0.8 | -0.8 | 12.4 | 987.9 | -0.7 |
| 66 | 1011 1110 | 991.250 | 1001.3 | -0.6 | -0.7 | 14.1 | 1003.7 | -2.4 |
| 67 | 1011 1101 | 1006.88 | 1025.4 | 0.8 | 0.9 | 24.1 | 1019.6 | 5.8 |
| 68 | 1011 1100 | 1022.50 | 1037.2 | -0.2 | -0.1 | 11.8 | 1035.4 | 1.8 |
| 69 | 1011 1011 | 1038.13 | 1052.8 | -1.0 | 0.0 | 15.6 | 1051.3 | 1.5 |
| 70 | 1011 1010 | 1053.75 | 1071.7 | -0.5 | -0.4 | 18.8 | 1067.2 | 4.5 |
| 71 | 1011 1001 | 1069.38 | 1091.3 | 0.0 | -0.2 | 19.7 | 1083.0 | 8.3 |
| 72 | 1011 1000 | 1085.00 | 1095.1 | 0.3 | 0.2 | 3.8 | 1098.9 | -3.8 |
| 73 | 1011 0111 | 1100.63 | 1112.3 | 1.0 | 1.0 | 17.2 | 1114.7 | -2.4 |
| 74 | 1011 0110 | 1116.25 | 1129.8 | -0.7 | -0.6 | 17.5 | 1130.6 | -0.8 |
| 75 | 1011 0101 | 1131.88 | 1151.0 | -0.3 | -0.2 | 21.2 | 1146.4 | 4.5 |
| 76 | 1011 0100 | 1147.50 | 1165.2 | -0.2 | 0.1 | 14.3 | 1162.3 | 3.0 |
| 77 | 1011 0011 | 1163.13 | 1177.5 | 1.0 | 1.0 | 12.3 | 1178.1 | -0.6 |
| 78 | 1011 0010 | 1178.75 | 1197.2 | 0.0 | 0.6 | 19.7 | 1194.0 | 3.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 463
1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------------|------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER UPPER | | POINT | DEVIATION | |
| 79 | 1011 0001 | 1194.38 | 1217.3 | -0.2 | -0.1 | 20.1 | 1209.8 | 7.5 |
| 80 | 1011 0000 | 1210.00 | 1226.5 | -0.4 | 1.6 | 9.2 | 1225.7 | 0.9 |
| 81 | 1010 1111 | 1225.63 | 1238.4 | 0.5 | 0.5 | 11.8 | 1241.5 | -3.1 |
| 82 | 1010 1110 | 1241.25 | 1252.6 | 0.6 | 0.7 | 14.2 | 1257.4 | -4.8 |
| 83 | 1010 1101 | 1256.88 | 1278.1 | -0.6 | 0.0 | 25.5 | 1273.2 | 4.8 |
| 84 | 1010 1100 | 1272.50 | 1288.2 | -0.2 | -0.2 | 10.2 | 1289.1 | -0.8 |
| 85 | 1010 1011 | 1288.13 | 1304.6 | -0.0 | -1.0 | 16.3 | 1304.9 | -0.3 |
| 86 | 1010 1010 | 1303.75 | 1323.6 | 0.3 | 0.3 | 19.0 | 1320.8 | 2.8 |
| 87 | 1010 1001 | 1319.38 | 1342.6 | 0.2 | 0.2 | 19.0 | 1336.6 | 6.0 |
| 88 | 1010 1000 | 1335.00 | 1352.1 | -0.2 | -0.3 | 9.5 | 1352.5 | -0.4 |
| 89 | 1010 0111 | 1350.63 | 1364.8 | -0.8 | -0.8 | 12.7 | 1368.3 | -3.6 |
| 90 | 1010 0110 | 1366.25 | 1380.9 | 0.5 | -0.1 | 16.1 | 1384.2 | -3.3 |
| 91 | 1010 0101 | 1381.88 | 1402.1 | 0.2 | 0.2 | 21.2 | 1400.0 | 2.0 |
| 92 | 1010 0100 | 1397.50 | 1421.3 | 0.0 | -0.1 | 19.3 | 1415.9 | 5.5 |
| 93 | 1010 0011 | 1413.13 | 1430.0 | -0.9 | -0.9 | 8.7 | 1431.7 | -1.7 |
| 94 | 1010 0010 | 1428.75 | 1449.4 | -0.5 | -0.6 | 19.4 | 1447.6 | 1.9 |
| 95 | 1010 0001 | 1444.38 | 1468.5 | 0.1 | 0.2 | 19.1 | 1463.4 | 5.1 |
| 96 | 1010 0000 | 1460.00 | 1476.1 | 0.5 | 0.6 | 7.5 | 1479.3 | -3.2 |
| 97 | 1001 1111 | 1475.63 | 1495.4 | -0.3 | 0.1 | 19.3 | 1495.1 | 0.2 |
| 98 | 1001 1110 | 1491.25 | 1505.4 | -0.6 | -0.6 | 10.0 | 1511.0 | -5.6 |
| 99 | 1001 1101 | 1506.88 | 1531.0 | 0.0 | -0.6 | 25.6 | 1526.8 | 4.2 |
| 100 | 1001 1100 | 1522.50 | 1541.9 | -0.0 | 0.0 | 10.9 | 1542.7 | -0.8 |
| 101 | 1001 1011 | 1538.13 | 1556.6 | 1.0 | 1.0 | 14.7 | 1558.5 | -2.0 |
| 102 | 1001 1010 | 1553.75 | 1575.5 | -0.4 | -0.4 | 18.9 | 1574.4 | 1.1 |
| 103 | 1001 1001 | 1569.38 | 1595.7 | -0.2 | -0.1 | 20.1 | 1590.2 | 5.4 |
| 104 | 1001 1000 | 1585.00 | 1601.7 | 0.2 | -0.1 | 6.0 | 1606.1 | -4.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 464

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TEST
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1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 105 | 1001 0111 | 1600.63 | 1617.0 0.6 0.7 | 15.3 | 1622.0 -4.9 |
| 106 | 1001 0110 | 1616.25 | 1633.0 -0.0 0.5 | 16.0 | 1637.8 -4.8 |
| 107 | 1001 0101 | 1631.88 | 1655.0 -0.1 -0.1 | 22.0 | 1653.7 1.4 |
| 108 | 1001 0100 | 1647.50 | 1669.6 -0.1 -0.1 | 14.6 | 1669.5 0.1 |
| 109 | 1001 0011 | 1663.13 | 1682.1 0.9 0.9 | 12.5 | 1685.4 -3.2 |
| 110 | 1001 0010 | 1678.75 | 1700.9 0.5 0.6 | 18.8 | 1701.2 -0.3 |
| 111 | 1001 0001 | 1694.38 | 1721.6 -0.1 0.0 | 20.7 | 1717.1 4.5 |
| 112 | 1001 0000 | 1710.00 | 1733.1 -0.3 -0.4 | 11.5 | 1732.9 0.2 |
| 113 | 1000 1111 | 1725.63 | 1746.9 -0.0 -0.3 | 13.8 | 1748.8 -1.9 |
| 114 | 1000 1110 | 1741.25 | 1756.2 0.6 0.6 | 9.3 | 1764.6 -8.4 |
| 115 | 1000 1101 | 1756.88 | 1782.0 0.5 0.5 | 25.8 | 1780.5 1.6 |
| 116 | 1000 1100 | 1772.50 | 1791.9 -0.2 -0.2 | 9.9 | 1796.3 -4.4 |
| 117 | 1000 1011 | 1788.13 | 1809.0 -0.9 -0.9 | 17.1 | 1812.2 -3.2 |
| 118 | 1000 1010 | 1803.75 | 1827.1 0.4 -0.2 | 18.0 | 1828.0 -1.0 |
| 119 | 1000 1001 | 1819.38 | 1846.8 0.2 0.1 | 19.7 | 1843.9 2.9 |
| 120 | 1000 1000 | 1835.00 | 1858.7 -0.1 -0.1 | 11.9 | 1859.7 -1.0 |
| 121 | 1000 0111 | 1850.63 | 1869.0 -0.5 -0.6 | 10.2 | 1875.6 -6.6 |
| 122 | 1000 0110 | 1866.25 | 1884.9 -0.5 -0.5 | 15.9 | 1891.4 -6.5 |
| 123 | 1000 0101 | 1881.88 | 1906.2 0.1 0.1 | 21.3 | 1907.3 -1.1 |
| 124 | 1000 0100 | 1897.50 | 1925.9 -0.3 -0.2 | 19.6 | 1923.1 2.7 |
| 125 | 1000 0011 | 1913.13 | 1934.3 -0.9 -0.1 | 8.4 | 1939.0 -4.7 |
| 126 | 1000 0010 | 1928.75 | 1952.9 -0.6 -0.5 | 18.6 | 1954.8 -1.9 |
| 127 | 1000 0001 | 1944.38 | 1972.7 0.0 -0.1 | 19.8 | 1970.7 2.0 |
| 128 | 1000 0000 | 1960.00 | 1982.3 0.4 0.3 | 9.6 | 1986.5 -4.2 |
| 129 | 0111 1111 | 1975.63 | 1997.6 0.9 1.0 | 15.3 | 2002.4 -4.8 |
| 130 | 0111 1110 | 1991.25 | 2014.0 -0.6 -0.5 | 16.4 | 2018.2 -4.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 465
 1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)

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REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER UPPER | POINT | | DEVIATION | |
| 131 | 0111 1101 | 2006.88 | 2038.5 | -0.5 | -0.4 | 24.5 | 2034.1 | 4.4 |
| 132 | 0111 1100 | 2022.50 | 2052.1 | 0.3 | 0.0 | 13.6 | 2049.9 | 2.2 |
| 133 | 0111 1011 | 2038.13 | 2063.0 | 0.9 | 0.8 | 10.9 | 2065.8 | -2.8 |
| 134 | 0111 1010 | 2053.75 | 2085.3 | -0.0 | 0.3 | 22.3 | 2081.6 | 3.6 |
| 135 | 0111 1001 | 2069.38 | 2104.3 | -0.3 | -0.5 | 19.0 | 2097.5 | 6.8 |
| 136 | 0111 1000 | 2085.00 | 2108.5 | -0.1 | -0.2 | 4.2 | 2113.3 | -4.9 |
| 137 | 0111 0111 | 2100.63 | 2123.5 | 0.9 | 1.0 | 15.0 | 2129.2 | -5.7 |
| 138 | 0111 0110 | 2116.25 | 2141.8 | 0.6 | 0.6 | 18.3 | 2145.1 | -3.2 |
| 139 | 0111 0101 | 2131.88 | 2164.2 | -0.2 | 0.0 | 22.3 | 2160.9 | 3.3 |
| 140 | 0111 0100 | 2147.50 | 2181.0 | -0.6 | -0.6 | 16.8 | 2176.8 | 4.2 |
| 141 | 0111 0011 | 2163.13 | 2189.5 | -0.0 | -0.8 | 8.5 | 2192.6 | -3.1 |
| 142 | 0111 0010 | 2178.75 | 2210.0 | 0.5 | 0.6 | 20.4 | 2208.5 | 1.5 |
| 143 | 0111 0001 | 2194.38 | 2229.2 | 0.8 | 0.8 | 19.3 | 2224.3 | 4.9 |
| 144 | 0111 0000 | 2210.00 | 2239.5 | -0.6 | -0.6 | 10.2 | 2240.2 | -0.7 |
| 145 | 0110 1111 | 2225.63 | 2250.4 | -0.7 | -0.8 | 11.0 | 2256.0 | -5.6 |
| 146 | 0110 1110 | 2241.25 | 2265.4 | 0.5 | -0.0 | 14.9 | 2271.9 | -6.5 |
| 147 | 0110 1101 | 2256.88 | 2289.8 | 0.4 | 0.5 | 24.5 | 2287.7 | 2.1 |
| 148 | 0110 1100 | 2272.50 | 2301.9 | -0.1 | 0.1 | 12.1 | 2303.6 | -1.7 |
| 149 | 0110 1011 | 2288.13 | 2315.6 | -0.7 | -0.7 | 13.7 | 2319.4 | -3.8 |
| 150 | 0110 1010 | 2303.75 | 2338.1 | -0.4 | -0.4 | 22.5 | 2335.3 | 2.8 |
| 151 | 0110 1001 | 2319.38 | 2355.5 | 0.2 | 0.3 | 17.4 | 2351.1 | 4.4 |
| 152 | 0110 1000 | 2335.00 | 2364.2 | 0.4 | 0.4 | 8.7 | 2367.0 | -2.8 |
| 153 | 0110 0111 | 2350.63 | 2376.2 | -0.9 | 0.1 | 12.0 | 2382.8 | -6.6 |
| 154 | 0110 0110 | 2366.25 | 2394.1 | -0.5 | -0.5 | 17.9 | 2398.7 | -4.5 |
| 155 | 0110 0101 | 2381.88 | 2415.4 | 0.0 | -0.2 | 21.2 | 2414.5 | 0.8 |
| 156 | 0110 0100 | 2397.50 | 2435.8 | 0.2 | 0.1 | 20.4 | 2430.4 | 5.4 |
| 157 | 0110 0011 | 2413.13 | 2440.5 | 0.7 | 0.6 | 4.7 | 2446.2 | -5.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 466

1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)

HAC
TEST
527

REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|---------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2462.2 | -0.5 | -0.4 | 21.7 | 2462.1 | 0.1 |
| 159 | 0110 0001 | 2444.38 | 2481.5 | -0.2 | -0.5 | 19.3 | 2477.9 | 3.6 |
| 160 | 0110 0000 | 2460.00 | 2487.3 | -0.0 | -0.1 | 5.8 | 2493.8 | -6.5 |
| 161 | 0101 1111 | 2475.63 | 2508.3 | -4.8 | 0.2 | 21.0 | 2509.6 | -1.3 |
| 162 | 0101 1110 | 2491.25 | 2517.8 | -0.1 | 0.5 | 9.5 | 2525.5 | -7.7 |
| 163 | 0101 1101 | 2506.88 | 2543.3 | -0.5 | -0.5 | 25.5 | 2541.3 | 2.0 |
| 164 | 0101 1100 | 2522.50 | 2557.6 | -0.3 | -0.2 | 14.3 | 2557.2 | 0.4 |
| 165 | 0101 1011 | 2538.13 | 2568.1 | 0.7 | 0.8 | 10.6 | 2573.0 | -4.9 |
| 166 | 0101 1010 | 2553.75 | 2589.6 | -1.9 | 0.4 | 21.5 | 2588.9 | 0.7 |
| 167 | 0101 1001 | 2569.38 | 2608.8 | -0.3 | -0.1 | 19.2 | 2604.7 | 4.1 |
| 168 | 0101 1000 | 2585.00 | 2615.4 | -0.3 | -0.3 | 6.5 | 2620.6 | -5.2 |
| 169 | 0101 0111 | 2600.63 | 2629.5 | 0.0 | -0.9 | 14.1 | 2636.4 | -7.0 |
| 170 | 0101 0110 | 2616.25 | 2646.1 | 0.5 | 0.5 | 16.6 | 2652.3 | -6.2 |
| 171 | 0101 0101 | 2631.88 | 2669.5 | -1.3 | 0.4 | 23.4 | 2668.1 | 1.4 |
| 172 | 0101 0100 | 2647.50 | 2685.3 | -0.4 | -0.4 | 15.8 | 2684.0 | 1.3 |
| 173 | 0101 0011 | 2663.13 | 2694.3 | -0.4 | -0.5 | 9.0 | 2699.9 | -5.5 |
| 174 | 0101 0010 | 2678.75 | 2714.3 | 0.5 | -0.1 | 20.0 | 2715.7 | -1.4 |
| 175 | 0101 0001 | 2694.38 | 2734.7 | 0.2 | 0.2 | 20.3 | 2731.6 | 3.1 |
| 176 | 0101 0000 | 2710.00 | 2747.8 | 0.0 | 0.5 | 13.1 | 2747.4 | 0.4 |
| 177 | 0100 1111 | 2725.63 | 2760.4 | -0.2 | -0.2 | 12.6 | 2763.3 | -2.8 |
| 178 | 0100 1110 | 2741.25 | 2770.0 | -0.4 | -0.4 | 9.6 | 2779.1 | -9.1 |
| 179 | 0100 1101 | 2756.88 | 2794.7 | 0.4 | 0.6 | 24.6 | 2795.0 | -0.3 |
| 180 | 0100 1100 | 2772.50 | 2806.1 | 0.7 | 0.2 | 11.5 | 2810.8 | -4.7 |
| 181 | 0100 1011 | 2788.13 | 2820.7 | -0.6 | 0.0 | 14.5 | 2826.7 | -6.0 |
| 182 | 0100 1010 | 2803.75 | 2842.3 | -0.3 | -0.2 | 21.6 | 2842.5 | -0.2 |
| 183 | 0100 1001 | 2819.38 | 2860.5 | -0.0 | -0.1 | 18.2 | 2858.4 | 2.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 467
 1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2876.3 | 0.2 | 0.0 | 15.8 | 2874.2 | 2.1 |
| 185 | 0100 0111 | 2850.63 | 2880.7 | 0.7 | 0.7 | 4.3 | 2890.1 | -9.4 |
| 186 | 0100 0110 | 2866.25 | 2898.4 | -0.4 | -0.4 | 17.8 | 2905.9 | -7.5 |
| 187 | 0100 0101 | 2881.88 | 2920.6 | 0.8 | 0.9 | 22.2 | 2921.8 | -1.1 |
| 188 | 0100 0100 | 2897.50 | 2941.6 | 0.2 | 0.0 | 21.0 | 2937.6 | 4.0 |
| 189 | 0100 0011 | 2913.13 | 2945.8 | 0.6 | 0.6 | 4.2 | 2953.5 | -7.6 |
| 190 | 0100 0010 | 2928.75 | 2966.3 | 0.0 | 0.3 | 20.4 | 2969.3 | -3.1 |
| 191 | 0100 0001 | 2944.38 | 2986.7 | -0.1 | -0.1 | 20.4 | 2985.2 | 1.5 |
| 192 | 0100 0000 | 2960.00 | 2995.3 | -0.1 | -0.1 | 8.6 | 3001.0 | -5.7 |
| 193 | 0011 1111 | 2975.63 | 3009.9 | 0.3 | 0.5 | 14.5 | 3016.9 | -7.0 |
| 194 | 0011 1110 | 2991.25 | 3024.7 | 0.3 | 0.4 | 14.8 | 3032.7 | -8.1 |
| 195 | 0011 1101 | 3006.88 | 3050.3 | -0.4 | 0.1 | 25.6 | 3048.6 | 1.7 |
| 196 | 0011 1100 | 3022.50 | 3063.4 | -0.4 | -0.4 | 13.1 | 3064.4 | -1.0 |
| 197 | 0011 1011 | 3038.13 | 3075.7 | 0.0 | -0.6 | 12.3 | 3080.3 | -4.6 |
| 198 | 0011 1010 | 3053.75 | 3097.1 | 0.2 | 0.1 | 21.4 | 3096.1 | 1.0 |
| 199 | 0011 1001 | 3069.38 | 3116.3 | 0.1 | 0.1 | 19.1 | 3112.0 | 4.3 |
| 200 | 0011 1000 | 3085.00 | 3119.4 | -0.3 | -0.3 | 3.1 | 3127.8 | -8.4 |
| 201 | 0011 0111 | 3100.63 | 3136.9 | -1.0 | -1.0 | 17.5 | 3143.7 | -6.8 |
| 202 | 0011 0110 | 3116.25 | 3153.8 | 0.4 | 0.0 | 16.9 | 3159.5 | -5.7 |
| 203 | 0011 0101 | 3131.88 | 3177.6 | 0.3 | 0.3 | 23.8 | 3175.4 | 2.2 |
| 204 | 0011 0100 | 3147.50 | 3191.8 | 0.0 | 0.4 | 14.2 | 3191.2 | 0.6 |
| 205 | 0011 0011 | 3163.13 | 3202.2 | -0.5 | -0.5 | 10.4 | 3207.1 | -4.9 |
| 206 | 0011 0010 | 3178.75 | 3227.9 | -0.3 | -0.2 | 25.7 | 3222.9 | 5.0 |
| 207 | 0011 0001 | 3194.38 | 3243.3 | 0.0 | 0.2 | 15.4 | 3238.8 | 4.5 |
| 208 | 0011 0000 | 3210.00 | 3253.7 | 0.5 | 0.4 | 10.4 | 3254.7 | -0.9 |
| 209 | 0010 1111 | 3225.63 | 3269.2 | -5.8 | 0.0 | 15.5 | 3270.5 | -1.3 |

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527

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 468
1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV.
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|-------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3278.7 | -0.4 | -0.4 | 9.5 | 3286.4 | -7.7 |
| 211 | 0010 1101 | 3256.88 | 3304.1 | -0.1 | -0.5 | 25.4 | 3302.2 | 1.9 |
| 212 | 0010 1100 | 3272.50 | 3314.1 | 0.2 | 0.2 | 10.0 | 3318.1 | -4.0 |
| 213 | 0010 1011 | 3288.13 | 3328.9 | 0.5 | 0.4 | 14.8 | 3333.9 | -5.0 |
| 214 | 0010 1010 | 3303.75 | 3351.6 | -0.3 | -0.2 | 22.6 | 3349.8 | 1.8 |
| 215 | 0010 1001 | 3319.38 | 3370.1 | -0.1 | -0.1 | 18.6 | 3365.6 | 4.5 |
| 216 | 0010 1000 | 3335.00 | 3382.6 | 0.3 | 0.0 | 12.4 | 3381.5 | 1.1 |
| 217 | 0010 0111 | 3350.63 | 3390.2 | 0.7 | 0.7 | 7.6 | 3397.3 | -7.1 |
| 218 | 0010 0110 | 3366.25 | 3407.9 | -0.1 | 0.3 | 17.7 | 3413.2 | -5.3 |
| 219 | 0010 0101 | 3381.88 | 3432.0 | -0.4 | -0.3 | 24.1 | 3429.0 | 3.0 |
| 220 | 0010 0100 | 3397.50 | 3450.1 | -0.1 | -0.4 | 18.0 | 3444.9 | 5.2 |
| 221 | 0010 0011 | 3413.13 | 3456.0 | 0.4 | 0.4 | 5.9 | 3460.7 | -4.8 |
| 222 | 0010 0010 | 3428.75 | 3476.9 | 0.1 | 0.3 | 20.9 | 3476.6 | 0.3 |
| 223 | 0010 0001 | 3444.38 | 3497.6 | -0.2 | 0.0 | 20.7 | 3492.4 | 5.2 |
| 224 | 0010 0000 | 3460.00 | 3505.2 | -0.5 | -0.5 | 7.6 | 3508.3 | -3.0 |
| 225 | 0001 1111 | 3475.63 | 3525.3 | -0.2 | -0.4 | 20.0 | 3524.1 | 1.1 |
| 226 | 0001 1110 | 3491.25 | 3533.6 | 0.4 | 0.4 | 8.4 | 3540.0 | -6.3 |
| 227 | 0001 1101 | 3506.88 | 3560.0 | -0.2 | 0.7 | 26.3 | 3555.8 | 4.1 |
| 228 | 0001 1100 | 3522.50 | 3573.3 | -0.4 | -0.3 | 13.3 | 3571.7 | 1.6 |
| 229 | 0001 1011 | 3538.13 | 3585.9 | -0.5 | -0.5 | 12.6 | 3587.5 | -1.6 |
| 230 | 0001 1010 | 3553.75 | 3601.6 | 0.4 | 0.0 | 15.7 | 3603.4 | -1.7 |
| 231 | 0001 1001 | 3569.38 | 3628.1 | -1.7 | -1.5 | 26.5 | 3619.2 | 8.9 |
| 232 | 0001 1000 | 3585.00 | 3631.5 | -0.1 | 0.1 | 3.4 | 3635.1 | -3.6 |
| 233 | 0001 0111 | 3600.63 | 3653.1 | -0.2 | -0.1 | 21.6 | 3650.9 | 2.2 |
| 234 | 0001 0110 | 3616.25 | 3664.1 | -0.0 | -0.3 | 11.0 | 3666.8 | -2.7 |
| 235 | 0001 0101 | 3631.88 | 3688.2 | 0.1 | 0.4 | 24.1 | 3682.6 | 5.6 |
| 236 | 0001 0100 | 3647.50 | 3702.4 | 0.2 | 0.4 | 14.2 | 3698.5 | 3.9 |

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 469

1981/11/30 13:59:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=3)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3713.4 | -0.4 | 0.0 | 11.0 | 3714.3 | -0.9 |
| 238 | 0001 0010 | 3678.75 | 3733.6 | -0.5 | -0.3 | 20.2 | 3730.2 | 3.4 |
| 239 | 0001 0001 | 3694.38 | 3754.5 | -0.1 | -0.0 | 20.9 | 3746.0 | 8.5 |
| 240 | 0001 0000 | 3710.00 | 3770.0 | 0.5 | 0.6 | 15.4 | 3761.9 | 8.1 |
| 241 | 0000 1111 | 3725.63 | 3780.8 | -0.1 | 0.2 | 10.8 | 3777.8 | 3.0 |
| 242 | 0000 1110 | 3741.25 | 3789.7 | -0.5 | -0.3 | 8.9 | 3793.6 | -3.9 |
| 243 | 0000 1101 | 3756.88 | 3816.6 | -0.8 | -0.6 | 26.8 | 3809.5 | 7.1 |
| 244 | 0000 1100 | 3772.50 | 3825.4 | 0.2 | 0.1 | 8.8 | 3825.3 | 0.1 |
| 245 | 0000 1011 | 3788.13 | 3841.5 | 0.3 | 0.5 | 16.0 | 3841.2 | 0.3 |
| 246 | 0000 1010 | 3803.75 | 3858.1 | -0.1 | 0.3 | 16.6 | 3857.0 | 1.1 |
| 247 | 0000 1001 | 3819.38 | 3884.5 | -0.6 | -0.3 | 26.4 | 3872.9 | 11.7 |
| 248 | 0000 1000 | 3835.00 | 3893.8 | -0.0 | -0.3 | 9.3 | 3888.7 | 5.1 |
| 249 | 0000 0111 | 3850.63 | 3909.1 | 0.1 | 0.2 | 15.2 | 3904.6 | 4.5 |
| 250 | 0000 0110 | 3866.25 | 3920.1 | -0.1 | 0.1 | 11.0 | 3920.4 | -0.3 |
| 251 | 0000 0101 | 3881.88 | 3944.9 | -0.5 | 0.0 | 24.8 | 3936.3 | 8.6 |
| 252 | 0000 0100 | 3897.50 | 3964.2 | -0.4 | -0.1 | 19.3 | 3952.1 | 12.1 |
| 253 | 0000 0011 | 3913.13 | 3969.9 | -0.1 | -0.4 | 5.7 | 3968.0 | 1.9 |
| 254 | 0000 0010 | 3928.75 | 3989.6 | 0.2 | 0.3 | 19.7 | 3983.8 | 5.8 |
| 255 | 0000 0001 | 3944.38 | 4011.0 | -0.3 | 0.0 | 21.4 | 3999.7 | 11.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 470
1981/11/30 14:05:54 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=4)
S U M M A R Y

HAC
TFST
S27

EDV 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.848X - 40.9MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.430%

OFFSET IS: -40.9MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998560$

ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.385MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.2MV | 222 | 15.924MV | 2.1MV | 200 | 5.404MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.8MV | 209 | -0.066MV | -3.6MV | 174 | .388MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 0.9MV | 209 | 0.001MV | -0.5MV | 192 | .264MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 471

1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=4)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST F.I.T STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|--------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| LEVELS RATIO= 1 :1 | | | | | | | | |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -31.3 | -0.1 | 0.0 | | -25.1 | -6.3 |
| 2 | 1111 1110 | -8.750 | -15.9 | 0.2 | 0.3 | 15.4 | -9.2 | -6.7 |
| 3 | 1111 1101 | 6.875 | 7.1 | -0.0 | 0.3 | 23.0 | 6.6 | 0.5 |
| 4 | 1111 1100 | 22.500 | 19.6 | -0.4 | -0.3 | 12.4 | 22.5 | -2.9 |
| 5 | 1111 1011 | 38.125 | 35.3 | -0.3 | -0.2 | 15.7 | 38.3 | -3.0 |
| 6 | 1111 1010 | 53.750 | 54.5 | 0.2 | -0.0 | 19.2 | 54.2 | 0.4 |
| 7 | 1111 1001 | 69.375 | 74.1 | 0.2 | 0.3 | 19.6 | 70.0 | 4.1 |
| 8 | 1111 1000 | 85.000 | 80.4 | -0.3 | -0.1 | 6.3 | 85.9 | -5.4 |
| 9 | 1111 0111 | 100.625 | 96.5 | -0.3 | -0.3 | 16.0 | 101.7 | -5.2 |
| 10 | 1111 0110 | 116.250 | 114.4 | -0.0 | -0.2 | 17.9 | 117.6 | -3.1 |
| 11 | 1111 0101 | 131.875 | 134.7 | 0.2 | 0.3 | 20.2 | 133.4 | 1.3 |
| 12 | 1111 0100 | 147.500 | 149.9 | 0.3 | 0.3 | 15.2 | 149.3 | 0.7 |
| 13 | 1111 0011 | 163.125 | 162.7 | -0.3 | 0.0 | 12.7 | 165.1 | -2.4 |
| 14 | 1111 0010 | 178.750 | 184.1 | -0.2 | -0.2 | 21.4 | 181.0 | 3.1 |
| 15 | 1111 0001 | 194.375 | 201.9 | 0.1 | 0.0 | 17.8 | 196.8 | 5.1 |
| 16 | 1111 0000 | 210.000 | 208.4 | 0.3 | 0.3 | 6.5 | 212.7 | -4.2 |
| 17 | 1110 1111 | 225.625 | 226.0 | -2.5 | 0.2 | 17.6 | 228.5 | -2.5 |
| 18 | 1110 1110 | 241.250 | 239.3 | -0.3 | -0.3 | 13.3 | 244.3 | -5.1 |
| 19 | 1110 1101 | 256.875 | 262.2 | -0.3 | -0.2 | 22.9 | 260.2 | 2.0 |
| 20 | 1110 1100 | 272.500 | 275.6 | 0.2 | -0.0 | 13.3 | 276.0 | -0.5 |
| 21 | 1110 1011 | 288.125 | 289.8 | 0.3 | 0.3 | 14.2 | 291.9 | -2.1 |
| 22 | 1110 1010 | 303.750 | 309.9 | -0.3 | 0.1 | 20.0 | 307.7 | 2.1 |
| 23 | 1110 1001 | 319.375 | 329.0 | -0.4 | -0.3 | 19.1 | 323.6 | 5.4 |
| 24 | 1110 1000 | 335.000 | 340.2 | -0.1 | -0.3 | 11.2 | 339.4 | 0.7 |
| 25 | 1110 0111 | 350.625 | 350.9 | 0.2 | 0.2 | 10.7 | 355.3 | -4.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 472
 1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.4.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=4)

HAC
TEST
527

11/10/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 368.9 | 0.2 | 0.2 | 18.0 | 371.1 | -2.3 |
| 27 | 1110 0101 | 381.875 | 389.5 | -0.4 | 0.0 | 20.6 | 387.0 | 2.5 |
| 28 | 1110 0100 | 397.500 | 409.3 | -0.4 | -0.3 | 19.8 | 402.8 | 6.5 |
| 29 | 1110 0011 | 413.125 | 416.9 | 0.3 | -0.0 | 7.5 | 418.7 | -1.8 |
| 30 | 1110 0010 | 428.750 | 437.7 | 0.1 | 0.3 | 20.8 | 434.5 | 3.1 |
| 31 | 1110 0001 | 444.375 | 456.2 | -0.1 | 0.2 | 18.5 | 450.4 | 5.8 |
| 32 | 1110 0000 | 460.000 | 462.5 | -0.3 | -0.3 | 6.4 | 466.2 | -3.7 |
| 33 | 1101 1111 | 475.625 | 481.9 | -0.3 | -0.2 | 19.4 | 482.1 | -0.2 |
| 34 | 1101 1110 | 491.250 | 493.8 | 0.2 | 0.0 | 11.9 | 497.9 | -4.1 |
| 35 | 1101 1101 | 506.875 | 517.9 | 0.2 | 0.3 | 24.0 | 513.8 | 4.1 |
| 36 | 1101 1100 | 522.500 | 528.1 | -0.3 | 0.0 | 10.2 | 529.6 | -1.5 |
| 37 | 1101 1011 | 538.125 | 545.7 | -0.4 | -0.3 | 17.6 | 545.5 | 0.3 |
| 38 | 1101 1010 | 553.750 | 564.2 | -0.0 | -0.2 | 18.5 | 561.3 | 2.9 |
| 39 | 1101 1001 | 569.375 | 584.3 | 0.2 | 0.3 | 20.1 | 577.2 | 7.1 |
| 40 | 1101 1000 | 585.000 | 592.3 | 0.3 | 0.2 | 8.0 | 593.0 | -0.7 |
| 41 | 1101 0111 | 600.625 | 606.6 | -0.4 | -0.1 | 14.3 | 608.9 | -2.3 |
| 42 | 1101 0110 | 616.250 | 623.7 | -0.3 | -0.2 | 17.0 | 624.7 | -1.1 |
| 43 | 1101 0101 | 631.875 | 644.7 | 0.3 | 0.0 | 21.0 | 640.6 | 4.1 |
| 44 | 1101 0100 | 647.500 | 660.1 | 0.2 | 0.2 | 15.3 | 656.4 | 3.6 |
| 45 | 1101 0011 | 663.125 | 672.0 | 0.0 | 0.3 | 12.0 | 672.3 | -0.2 |
| 46 | 1101 0010 | 678.750 | 692.7 | -0.3 | -0.2 | 20.6 | 688.1 | 4.6 |
| 47 | 1101 0001 | 694.375 | 711.5 | -0.3 | -0.2 | 18.8 | 704.0 | 7.5 |
| 48 | 1101 0000 | 710.000 | 723.8 | 0.3 | 0.0 | 12.3 | 719.8 | 4.0 |
| 49 | 1100 1111 | 725.625 | 735.2 | 0.2 | 0.2 | 11.4 | 735.7 | -0.4 |
| 50 | 1100 1110 | 741.250 | 747.7 | -0.3 | 0.0 | 12.4 | 751.5 | -3.8 |
| 51 | 1100 1101 | 756.875 | 771.4 | -0.3 | -0.3 | 23.8 | 767.3 | 4.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 473

1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=4)

HAC
TEST
127

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER UPPER | POINT | | DEVIATION | |
| 52 | 1100 1100 | 772.500 | 794.1 | -0.0 | -0.3 | 12.6 | 783.2 | 0.9 |
| 53 | 1100 1011 | 788.125 | 798.6 | 0.3 | 0.3 | 14.6 | 799.0 | -0.4 |
| 54 | 1100 1010 | 803.750 | 817.8 | 0.2 | 0.3 | 19.1 | 814.9 | 2.9 |
| 55 | 1100 1001 | 819.375 | 837.5 | -0.3 | -0.0 | 19.7 | 830.7 | 6.8 |
| 56 | 1100 1000 | 835.000 | 851.3 | -0.4 | -0.2 | 13.8 | 846.6 | 4.7 |
| 57 | 1100 0111 | 850.625 | 859.1 | 0.3 | -0.0 | 7.8 | 862.4 | -3.3 |
| 58 | 1100 0110 | 866.250 | 876.2 | 0.1 | 0.2 | 17.1 | 878.3 | -2.1 |
| 59 | 1100 0101 | 881.875 | 897.5 | -0.1 | 0.2 | 21.2 | 894.1 | 3.3 |
| 60 | 1100 0100 | 897.500 | 914.5 | -0.3 | -0.3 | 17.0 | 910.0 | 4.5 |
| 61 | 1100 0011 | 913.125 | 924.8 | -0.2 | -0.2 | 10.3 | 925.8 | -1.1 |
| 62 | 1100 0010 | 928.750 | 944.4 | 0.2 | -0.0 | 19.6 | 941.7 | 2.7 |
| 63 | 1100 0001 | 944.375 | 963.4 | 0.1 | 0.2 | 19.0 | 957.5 | 5.9 |
| 64 | 1100 0000 | 960.000 | 977.0 | -0.4 | -0.1 | 13.5 | 973.4 | 3.6 |
| 65 | 1011 1111 | 975.625 | 991.4 | -0.2 | -0.2 | 14.4 | 989.2 | 2.2 |
| 66 | 1011 1110 | 991.250 | 1002.4 | -0.1 | -0.3 | 11.0 | 1005.1 | -2.6 |
| 67 | 1011 1101 | 1006.88 | 1026.4 | 0.3 | 0.2 | 24.0 | 1020.9 | 5.5 |
| 68 | 1011 1100 | 1022.50 | 1037.1 | 0.3 | 0.3 | 10.6 | 1036.8 | 0.3 |
| 69 | 1011 1011 | 1038.13 | 1053.5 | -0.2 | 0.0 | 16.4 | 1052.6 | 0.9 |
| 70 | 1011 1010 | 1053.75 | 1072.4 | -0.3 | -0.3 | 18.9 | 1068.5 | 4.0 |
| 71 | 1011 1001 | 1069.38 | 1092.5 | 0.3 | -0.0 | 20.0 | 1084.3 | 8.1 |
| 72 | 1011 1000 | 1085.00 | 1096.4 | 0.2 | 0.2 | 3.9 | 1100.2 | -3.8 |
| 73 | 1011 0111 | 1100.63 | 1113.7 | -0.1 | 0.3 | 17.3 | 1116.0 | -2.4 |
| 74 | 1011 0110 | 1116.25 | 1131.0 | -0.3 | -0.3 | 17.3 | 1131.9 | -0.9 |
| 75 | 1011 0101 | 1131.88 | 1152.7 | -0.3 | -0.3 | 21.7 | 1147.7 | 5.0 |
| 76 | 1011 0100 | 1147.50 | 1165.8 | 0.2 | 0.1 | 13.0 | 1163.6 | 2.2 |
| 77 | 1011 0011 | 1163.13 | 1178.9 | 0.4 | 0.3 | 13.1 | 1179.4 | -0.5 |
| 78 | 1011 0010 | 1178.75 | 1199.3 | -0.2 | -0.0 | 20.4 | 1195.3 | 4.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 474
 1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-R A/D THRESHOLD TEST (BAND= 3, SENSOR=4)

HAC
TRST
S27

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1218.9 | -0.2 | -0.2 | 19.5 | 1211.1 | 7.8 |
| 80 | 1011 0000 | 1210.00 | 1228.0 | 0.0 | -0.3 | 9.2 | 1227.0 | 1.1 |
| 81 | 1010 1111 | 1225.63 | 1242.9 | 0.2 | 0.2 | 14.9 | 1242.8 | 0.1 |
| 82 | 1010 1110 | 1241.25 | 1254.0 | 0.3 | 0.2 | 11.1 | 1258.7 | -4.6 |
| 83 | 1010 1101 | 1256.88 | 1278.3 | -0.3 | -0.0 | 24.2 | 1274.5 | 3.8 |
| 84 | 1010 1100 | 1272.50 | 1289.5 | -0.4 | -0.4 | 11.3 | 1290.3 | -0.8 |
| 85 | 1010 1011 | 1288.13 | 1304.9 | 0.3 | -0.0 | 15.4 | 1306.2 | -1.3 |
| 86 | 1010 1010 | 1303.75 | 1324.3 | 0.3 | 0.3 | 19.4 | 1322.0 | 2.2 |
| 87 | 1010 1001 | 1319.38 | 1344.0 | 0.0 | 0.3 | 19.7 | 1337.9 | 6.1 |
| 88 | 1010 1000 | 1335.00 | 1353.8 | -0.2 | -0.3 | 9.8 | 1353.7 | 0.1 |
| 89 | 1010 0111 | 1350.63 | 1365.5 | -0.4 | -0.3 | 11.6 | 1369.6 | -4.1 |
| 90 | 1010 0110 | 1366.25 | 1382.2 | 0.3 | -0.0 | 16.7 | 1385.4 | -3.2 |
| 91 | 1010 0101 | 1381.88 | 1404.3 | 0.3 | 0.3 | 22.1 | 1401.3 | 3.0 |
| 92 | 1010 0100 | 1397.50 | 1422.1 | -0.3 | -0.0 | 17.8 | 1417.1 | 4.9 |
| 93 | 1010 0011 | 1413.13 | 1430.6 | -0.3 | -0.2 | 8.5 | 1433.0 | -2.4 |
| 94 | 1010 0010 | 1428.75 | 1450.5 | -0.1 | -0.2 | 19.9 | 1448.8 | 1.7 |
| 95 | 1010 0001 | 1444.38 | 1469.9 | 0.2 | 0.2 | 19.4 | 1464.7 | 5.2 |
| 96 | 1010 0000 | 1460.00 | 1480.7 | 0.3 | 0.3 | 10.8 | 1480.5 | 0.2 |
| 97 | 1001 1111 | 1475.63 | 1495.9 | -0.3 | 0.0 | 15.2 | 1496.4 | -0.5 |
| 98 | 1001 1110 | 1491.25 | 1506.2 | -0.3 | -0.2 | 10.3 | 1512.2 | -6.0 |
| 99 | 1001 1101 | 1506.88 | 1530.5 | 0.3 | -0.0 | 24.3 | 1528.1 | 2.5 |
| 100 | 1001 1100 | 1522.50 | 1541.0 | 0.2 | 0.3 | 10.5 | 1543.9 | -2.9 |
| 101 | 1001 1011 | 1538.13 | 1557.8 | 0.0 | 0.3 | 16.7 | 1559.8 | -2.0 |
| 102 | 1001 1010 | 1553.75 | 1576.3 | -0.3 | -0.3 | 18.5 | 1575.6 | 0.7 |
| 103 | 1001 1001 | 1569.38 | 1597.4 | -0.4 | -0.4 | 21.1 | 1591.5 | 6.0 |
| 104 | 1001 1000 | 1585.00 | 1602.8 | 0.3 | -0.0 | 5.3 | 1607.3 | -4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 475
 1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=4)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1622.1 | 0.1 | 0.2 | 19.3 | 1623.2 | -1.1 |
| 106 | 1001 0110 | 1616.25 | 1634.6 | -0.3 | -0.0 | 12.5 | 1639.0 | -4.4 |
| 107 | 1001 0101 | 1631.88 | 1657.4 | -0.2 | -0.2 | 22.8 | 1654.9 | 2.5 |
| 108 | 1001 0100 | 1647.50 | 1670.4 | 0.0 | -0.3 | 13.0 | 1670.7 | -0.3 |
| 109 | 1001 0011 | 1663.13 | 1683.2 | 0.3 | 0.3 | 12.8 | 1686.6 | -3.3 |
| 110 | 1001 0010 | 1678.75 | 1702.5 | 0.3 | 0.2 | 19.2 | 1702.4 | 0.1 |
| 111 | 1001 0001 | 1694.38 | 1722.9 | -0.3 | 0.0 | 20.5 | 1718.3 | 4.7 |
| 112 | 1001 0000 | 1710.00 | 1738.0 | -0.4 | -0.4 | 15.0 | 1734.1 | 3.9 |
| 113 | 1000 1111 | 1725.63 | 1747.0 | 0.2 | 0.0 | 9.0 | 1750.0 | -2.9 |
| 114 | 1000 1110 | 1741.25 | 1757.6 | 0.2 | 0.2 | 10.5 | 1765.8 | -8.2 |
| 115 | 1000 1101 | 1756.88 | 1781.8 | 0.0 | 0.3 | 24.3 | 1781.7 | 0.2 |
| 116 | 1000 1100 | 1772.50 | 1793.0 | -0.4 | -0.4 | 11.2 | 1797.5 | -4.5 |
| 117 | 1000 1011 | 1788.13 | 1809.6 | -0.4 | -0.4 | 16.5 | 1813.3 | -3.8 |
| 118 | 1000 1010 | 1803.75 | 1827.7 | 0.2 | -0.0 | 18.2 | 1829.2 | -1.5 |
| 119 | 1000 1001 | 1819.38 | 1848.9 | 0.1 | 0.2 | 21.1 | 1845.0 | 3.8 |
| 120 | 1000 1000 | 1835.00 | 1860.2 | -0.2 | 0.3 | 11.3 | 1860.9 | -0.7 |
| 121 | 1000 0111 | 1850.63 | 1873.4 | -0.2 | -0.2 | 13.2 | 1876.7 | -3.4 |
| 122 | 1000 0110 | 1866.25 | 1885.9 | -0.0 | -0.3 | 12.5 | 1892.6 | -6.7 |
| 123 | 1000 0101 | 1881.88 | 1908.3 | 0.2 | 0.2 | 22.4 | 1908.4 | -0.1 |
| 124 | 1000 0100 | 1897.50 | 1925.4 | 0.3 | 0.3 | 17.1 | 1924.3 | 1.2 |
| 125 | 1000 0011 | 1913.13 | 1934.7 | -0.3 | 0.0 | 9.2 | 1940.1 | -5.4 |
| 126 | 1000 0010 | 1928.75 | 1954.0 | -0.4 | -0.3 | 19.3 | 1956.0 | -2.0 |
| 127 | 1000 0001 | 1944.38 | 1973.7 | 0.2 | 0.1 | 19.7 | 1971.8 | 1.9 |
| 128 | 1000 0000 | 1960.00 | 1991.8 | 0.4 | 0.4 | 18.1 | 1987.7 | 4.1 |
| 129 | 0111 1111 | 1975.63 | 2004.3 | -0.2 | 0.2 | 12.5 | 2003.5 | 0.8 |
| 130 | 0111 1110 | 1991.25 | 2014.9 | -0.3 | -0.3 | 10.6 | 2019.4 | -4.5 |

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5-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 476

781/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=4)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2038.8 | -0.2 | -0.2 | 23.9 | 2035.2 | 3.6 |
| 132 | 0111 1100 | 2022.50 | 2051.3 | 0.2 | -0.0 | 12.5 | 2051.1 | 0.2 |
| 133 | 0111 1011 | 2038.13 | 2064.1 | 0.4 | 0.3 | 12.7 | 2066.9 | -2.9 |
| 134 | 0111 1010 | 2053.75 | 2086.0 | -0.4 | 0.0 | 21.9 | 2082.8 | 3.2 |
| 135 | 0111 1001 | 2069.38 | 2105.0 | -0.3 | -0.3 | 19.0 | 2098.6 | 6.4 |
| 136 | 0111 1000 | 2085.00 | 2109.4 | -0.1 | -0.3 | 4.3 | 2114.5 | -5.1 |
| 137 | 0111 0111 | 2100.63 | 2124.5 | 0.4 | 0.3 | 15.1 | 2130.3 | -5.8 |
| 138 | 0111 0110 | 2116.25 | 2143.0 | 0.3 | 0.3 | 18.5 | 2146.2 | -3.2 |
| 139 | 0111 0101 | 2131.88 | 2165.6 | -0.3 | 0.1 | 22.6 | 2162.0 | 3.6 |
| 140 | 0111 0100 | 2147.50 | 2181.5 | -0.3 | -0.3 | 15.9 | 2177.9 | 3.6 |
| 141 | 0111 0011 | 2163.13 | 2189.8 | 0.2 | 0.0 | 8.3 | 2193.7 | -3.9 |
| 142 | 0111 0010 | 2178.75 | 2215.5 | 0.3 | 0.3 | 25.7 | 2209.6 | 6.0 |
| 143 | 0111 0001 | 2194.38 | 2231.2 | -0.2 | -0.2 | 15.6 | 2225.4 | 5.8 |
| 144 | 0111 0000 | 2210.00 | 2240.4 | -0.4 | -0.4 | 9.2 | 2241.3 | -0.8 |
| 145 | 0110 1111 | 2225.63 | 2256.0 | -0.5 | -0.4 | 15.6 | 2257.1 | -1.1 |
| 146 | 0110 1110 | 2241.25 | 2266.4 | 0.2 | 0.3 | 10.4 | 2273.0 | -6.5 |
| 147 | 0110 1101 | 2256.88 | 2290.3 | 0.3 | 0.3 | 23.8 | 2288.8 | 1.5 |
| 148 | 0110 1100 | 2272.50 | 2303.0 | -0.3 | -0.0 | 12.7 | 2304.7 | -1.7 |
| 149 | 0110 1011 | 2288.13 | 2316.2 | -0.4 | -0.4 | 13.2 | 2320.5 | -4.3 |
| 150 | 0110 1010 | 2303.75 | 2338.2 | -0.1 | -0.4 | 22.0 | 2336.3 | 1.9 |
| 151 | 0110 1001 | 2319.38 | 2356.4 | 0.3 | 0.2 | 18.2 | 2352.2 | 4.2 |
| 152 | 0110 1000 | 2335.00 | 2365.3 | 0.3 | 0.3 | 8.9 | 2368.0 | -2.7 |
| 153 | 0110 0111 | 2350.63 | 2376.5 | -0.3 | -0.3 | 11.2 | 2383.9 | -7.4 |
| 154 | 0110 0110 | 2366.25 | 2394.9 | -0.3 | -0.3 | 18.5 | 2399.7 | -4.8 |
| 155 | 0110 0101 | 2381.88 | 2416.8 | 0.1 | 0.0 | 21.9 | 2415.6 | 1.3 |
| 156 | 0110 0100 | 2397.50 | 2436.2 | 0.5 | 0.4 | 19.3 | 2431.4 | 4.7 |
| 157 | 0110 0011 | 2413.13 | 2441.4 | -0.1 | 0.3 | 5.2 | 2447.3 | -5.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 477

1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=4)

HAC
TEST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2466.7 | -0.2 | -0.3 | 25.3 | 2463.1 | 3.6 |
| 159 | 0110 0001 | 2444.38 | 2482.8 | -0.3 | -0.3 | 16.0 | 2479.0 | 3.8 |
| 160 | 0110 0000 | 2460.00 | 2489.8 | 0.3 | 0.3 | 7.1 | 2494.8 | -5.0 |
| 161 | 0101 1111 | 2475.63 | 2508.4 | 0.1 | 0.1 | 18.6 | 2510.7 | -2.3 |
| 162 | 0101 1110 | 2491.25 | 2519.1 | -0.4 | -0.1 | 10.6 | 2526.5 | -7.5 |
| 163 | 0101 1101 | 2506.88 | 2542.4 | -0.2 | -0.2 | 24.3 | 2542.4 | 1.0 |
| 164 | 0101 1100 | 2522.50 | 2556.8 | 0.0 | -0.3 | 13.4 | 2558.2 | -1.5 |
| 165 | 0101 1011 | 2538.13 | 2569.0 | 0.3 | 0.3 | 12.3 | 2574.1 | -5.1 |
| 166 | 0101 1010 | 2553.75 | 2589.8 | 0.3 | 0.3 | 20.8 | 2589.9 | -0.1 |
| 167 | 0101 1001 | 2569.38 | 2610.8 | -0.3 | -0.3 | 20.9 | 2605.8 | 5.0 |
| 168 | 0101 1000 | 2585.00 | 2616.1 | -0.3 | -0.2 | 5.4 | 2621.6 | -5.5 |
| 169 | 0101 0111 | 2600.63 | 2629.4 | 0.4 | 0.0 | 13.2 | 2637.5 | -8.1 |
| 170 | 0101 0110 | 2616.25 | 2647.1 | 0.2 | 0.2 | 17.8 | 2653.3 | -6.2 |
| 171 | 0101 0101 | 2631.88 | 2669.7 | 0.0 | 0.2 | 22.6 | 2669.2 | 0.6 |
| 172 | 0101 0100 | 2647.50 | 2686.0 | -0.3 | -0.3 | 16.3 | 2685.0 | 1.0 |
| 173 | 0101 0011 | 2663.13 | 2694.9 | -0.4 | -0.4 | 8.9 | 2700.9 | -5.9 |
| 174 | 0101 0010 | 2678.75 | 2719.5 | -3.6 | 0.4 | 24.5 | 2716.7 | 2.7 |
| 175 | 0101 0001 | 2694.38 | 2735.7 | 0.3 | 0.3 | 16.2 | 2732.6 | 3.1 |
| 176 | 0101 0000 | 2710.00 | 2749.1 | -0.4 | 0.0 | 13.5 | 2748.4 | 0.7 |
| 177 | 0100 1111 | 2725.63 | 2760.3 | -0.2 | -0.3 | 11.2 | 2764.3 | -4.0 |
| 178 | 0100 1110 | 2741.25 | 2770.8 | -0.0 | -0.3 | 10.5 | 2780.1 | -9.3 |
| 179 | 0100 1101 | 2756.88 | 2794.8 | 0.2 | 0.3 | 24.0 | 2796.0 | -1.2 |
| 180 | 0100 1100 | 2772.50 | 2806.7 | 0.1 | 0.2 | 12.0 | 2811.8 | -5.1 |
| 181 | 0100 1011 | 2788.13 | 2821.1 | -0.3 | -0.3 | 14.3 | 2827.7 | -6.6 |
| 182 | 0100 1010 | 2803.75 | 2842.3 | -0.3 | -0.2 | 21.2 | 2843.5 | -1.2 |
| 183 | 0100 1001 | 2819.38 | 2862.3 | 0.2 | -0.0 | 20.0 | 2859.3 | 2.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 478

1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=4)

HAC
TEST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2873.5 | 0.3 | 0.3 | 11.2 | 2873.2 | -1.7 |
| 185 | 0100 0111 | 2850.63 | 2881.4 | -0.1 | 0.3 | 7.9 | 2891.0 | -9.6 |
| 186 | 0100 0110 | 2866.25 | 2899.1 | -0.2 | -0.2 | 17.7 | 2906.9 | -7.8 |
| 187 | 0100 0101 | 2881.88 | 2921.8 | -0.3 | -0.3 | 22.7 | 2922.7 | -1.0 |
| 188 | 0100 0100 | 2897.50 | 2941.6 | 0.2 | 0.3 | 19.8 | 2938.6 | 3.0 |
| 189 | 0100 0011 | 2913.13 | 2946.5 | 0.3 | 0.3 | 4.9 | 2954.4 | -8.0 |
| 190 | 0100 0010 | 2928.75 | 2968.0 | -0.2 | 0.0 | 21.5 | 2970.3 | -2.3 |
| 191 | 0100 0001 | 2944.38 | 2987.8 | -0.2 | -0.2 | 19.8 | 2986.1 | 1.6 |
| 192 | 0100 0000 | 2960.00 | 2997.2 | -0.1 | -0.5 | 9.4 | 3002.0 | -4.8 |
| 193 | 0011 1111 | 2975.63 | 3016.1 | -0.1 | 0.3 | 19.0 | 3017.8 | -1.7 |
| 194 | 0011 1110 | 2991.25 | 3025.5 | 0.3 | 0.3 | 9.3 | 3033.7 | -8.2 |
| 195 | 0011 1101 | 3006.88 | 3050.4 | -0.4 | -0.3 | 25.0 | 3049.5 | 0.9 |
| 196 | 0011 1100 | 3022.50 | 3062.2 | -0.3 | -0.3 | 11.8 | 3065.4 | -3.1 |
| 197 | 0011 1011 | 3038.13 | 3075.8 | 0.3 | -0.0 | 13.6 | 3081.2 | -5.4 |
| 198 | 0011 1010 | 3053.75 | 3097.6 | 0.3 | 0.3 | 21.7 | 3097.1 | 0.5 |
| 199 | 0011 1001 | 3069.38 | 3117.9 | -0.0 | 0.3 | 20.3 | 3112.9 | 5.0 |
| 200 | 0011 1000 | 3085.00 | 3119.9 | -0.3 | -0.3 | 2.1 | 3128.8 | -8.8 |
| 201 | 0011 0111 | 3100.63 | 3137.0 | -0.4 | -0.4 | 17.1 | 3144.6 | -7.6 |
| 202 | 0011 0110 | 3116.25 | 3154.6 | 0.3 | 0.3 | 17.5 | 3160.5 | -5.9 |
| 203 | 0011 0101 | 3131.88 | 3177.6 | 0.2 | 0.3 | 23.0 | 3176.3 | 1.2 |
| 204 | 0011 0100 | 3147.50 | 3192.9 | -0.2 | 0.1 | 15.3 | 3192.2 | 0.7 |
| 205 | 0011 0011 | 3163.13 | 3202.6 | -0.3 | -0.3 | 9.7 | 3208.0 | -5.4 |
| 206 | 0011 0010 | 3178.75 | 3227.9 | -0.1 | -0.3 | 25.3 | 3223.9 | 4.0 |
| 207 | 0011 0001 | 3194.38 | 3244.2 | 0.3 | 0.3 | 16.3 | 3239.7 | 4.5 |
| 208 | 0011 0000 | 3210.00 | 3254.7 | 0.3 | 0.4 | 10.5 | 3255.6 | -0.8 |
| 209 | 0010 1111 | 3225.63 | 3269.2 | 0.8 | 0.9 | 14.4 | 3271.4 | -2.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 479

1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=4)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 210 | 0010 1110 | 3241.25 | 3279.3 -0.3 -0.3 | 10.1 | 3287.3 -8.0 |
| 211 | 0010 1101 | 3256.88 | 3303.7 0.2 0.1 | 24.4 | 3303.1 0.6 |
| 212 | 0010 1100 | 3272.50 | 3315.2 0.3 0.4 | 11.6 | 3319.0 -3.7 |
| 213 | 0010 1011 | 3288.13 | 3329.5 -0.1 0.4 | 14.3 | 3334.8 -5.3 |
| 214 | 0010 1010 | 3303.75 | 3351.6 -0.2 -0.2 | 22.1 | 3350.7 0.9 |
| 215 | 0010 1001 | 3319.38 | 3372.0 -0.5 -0.5 | 20.4 | 3366.5 5.5 |
| 216 | 0010 1000 | 3335.00 | 3383.0 0.3 0.3 | 10.9 | 3382.3 0.6 |
| 217 | 0010 0111 | 3350.63 | 3390.8 0.4 0.4 | 7.8 | 3398.2 -7.4 |
| 218 | 0010 0110 | 3366.25 | 3408.9 -0.4 0.0 | 18.1 | 3414.0 -5.2 |
| 219 | 0010 0101 | 3381.88 | 3431.8 -0.3 -0.2 | 23.0 | 3429.9 1.9 |
| 220 | 0010 0100 | 3397.50 | 3450.7 -0.1 -0.4 | 18.9 | 3445.7 5.0 |
| 221 | 0010 0011 | 3413.13 | 3456.4 0.3 0.3 | 5.7 | 3461.6 -5.2 |
| 222 | 0010 0010 | 3428.75 | 3482.7 0.3 0.3 | 26.2 | 3477.4 5.2 |
| 223 | 0010 0001 | 3444.38 | 3500.1 -0.4 -0.3 | 17.4 | 3493.3 6.8 |
| 224 | 0010 0000 | 3460.00 | 3505.3 -0.4 -0.4 | 5.2 | 3509.1 -3.9 |
| 225 | 0001 1111 | 3475.63 | 3524.6 -0.9 -0.1 | 19.3 | 3525.0 -0.4 |
| 226 | 0001 1110 | 3491.25 | 3534.1 0.2 0.4 | 9.5 | 3540.8 -6.7 |
| 227 | 0001 1101 | 3506.88 | 3559.7 -0.2 0.3 | 25.5 | 3556.7 3.0 |
| 228 | 0001 1100 | 3522.50 | 3572.3 -0.3 -0.3 | 12.6 | 3572.5 -0.2 |
| 229 | 0001 1011 | 3538.13 | 3586.3 -0.4 -0.3 | 13.9 | 3588.4 -2.1 |
| 230 | 0001 1010 | 3553.75 | 3607.2 0.2 0.3 | 20.9 | 3604.2 3.0 |
| 231 | 0001 1001 | 3569.38 | 3628.0 0.2 0.3 | 20.7 | 3620.1 7.9 |
| 232 | 0001 1000 | 3585.00 | 3632.3 -0.5 -0.1 | 4.3 | 3635.9 -3.6 |
| 233 | 0001 0111 | 3600.63 | 3647.6 -0.4 -0.3 | 15.3 | 3651.8 -4.2 |
| 234 | 0001 0110 | 3616.25 | 3664.7 -0.1 -0.3 | 17.1 | 3667.6 -2.9 |
| 235 | 0001 0101 | 3631.88 | 3688.3 0.1 0.3 | 23.5 | 3683.5 4.8 |
| 236 | 0001 0100 | 3647.50 | 3703.3 0.1 0.1 | 15.1 | 3699.3 4.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 480

1981/11/30 14:06:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=4)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3713.7 | -0.3 | -0.2 | 10.3 | 3715.2 | -1.5 |
| 238 | 0001 0010 | 3678.75 | 3738.2 | -0.5 | -0.2 | 24.5 | 3731.0 | 7.2 |
| 239 | 0001 0001 | 3694.38 | 3756.8 | 0.1 | 0.0 | 18.6 | 3746.9 | 9.9 |
| 240 | 0001 0000 | 3710.00 | 3770.8 | 0.2 | 0.3 | 14.0 | 3762.7 | 8.1 |
| 241 | 0000 1111 | 3725.63 | 3780.2 | -0.1 | 0.3 | 9.5 | 3778.6 | 1.7 |
| 242 | 0000 1110 | 3741.25 | 3790.1 | -0.3 | -0.3 | 9.9 | 3794.4 | -4.3 |
| 243 | 0000 1101 | 3756.88 | 3815.5 | -0.3 | -0.2 | 25.4 | 3810.3 | 5.3 |
| 244 | 0000 1100 | 3772.50 | 3825.8 | 0.3 | 0.3 | 10.2 | 3826.1 | -0.3 |
| 245 | 0000 1011 | 3788.13 | 3841.8 | 0.2 | 0.3 | 16.0 | 3842.0 | -0.1 |
| 246 | 0000 1010 | 3803.75 | 3859.0 | -0.3 | 0.0 | 17.1 | 3857.8 | 1.2 |
| 247 | 0000 1001 | 3819.38 | 3884.3 | -0.5 | -0.3 | 25.3 | 3873.7 | 10.6 |
| 248 | 0000 1000 | 3835.00 | 3894.5 | -0.1 | -0.4 | 10.2 | 3889.5 | 5.0 |
| 249 | 0000 0111 | 3850.63 | 3909.6 | 0.4 | 0.6 | 15.1 | 3905.4 | 4.2 |
| 250 | 0000 0110 | 3866.25 | 3920.5 | 0.3 | 0.4 | 10.9 | 3921.2 | -0.7 |
| 251 | 0000 0101 | 3881.88 | 3944.7 | -0.5 | -0.2 | 24.3 | 3937.0 | 7.7 |
| 252 | 0000 0100 | 3897.50 | 3963.6 | -0.4 | -0.2 | 18.9 | 3952.9 | 10.7 |
| 253 | 0000 0011 | 3913.13 | 3969.8 | 0.3 | -0.0 | 6.2 | 3968.7 | 1.0 |
| 254 | 0000 0010 | 3928.75 | 3995.3 | -0.1 | 0.3 | 25.6 | 3984.6 | 10.8 |
| 255 | 0000 0001 | 3944.38 | 4013.2 | -0.3 | 0.2 | 17.9 | 4000.4 | 12.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 481

1981/11/30 14:12:30 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)
S U M M A R Y

HAC
TEST
S27

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.821X - 39.2MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.257%

OFFSET IS:-39.2MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998560$

ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR = 4.442MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.1MV | 222 | 15.893MV | 0.8MV | 200 | 5.484MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 2.7MV | 161 | -0.024MV | -2.9MV | 160 | .442MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 4.6MV | 216 | 0.060MV | -0.5MV | 219 | .472MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 482

1981/11/30 14:12:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)

HAC
TFST
S27

REV 30 70

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|-------------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | LEVELS RATIO= 1 :1
NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -29.7 | -0.2 | 0.1 | | -23.4 | -6.3 |
| 2 | 1111 1110 | -8.750 | -13.8 | 0.2 | 0.3 | 15.9 | -7.6 | -6.2 |
| 3 | 1111 1101 | 6.875 | 9.3 | -0.4 | 0.0 | 23.1 | 8.2 | 1.1 |
| 4 | 1111 1100 | 22.500 | 21.9 | -0.3 | -0.2 | 12.6 | 24.1 | -2.2 |
| 5 | 1111 1011 | 38.125 | 36.9 | 0.0 | -0.2 | 15.1 | 39.9 | -2.9 |
| 6 | 1111 1010 | 53.750 | 56.5 | 0.2 | 0.2 | 19.6 | 55.7 | 0.9 |
| 7 | 1111 1001 | 69.375 | 75.9 | 0.3 | 0.3 | 19.3 | 71.5 | 4.4 |
| 8 | 1111 1000 | 85.000 | 81.5 | -0.3 | 0.0 | 5.6 | 87.3 | -5.9 |
| 9 | 1111 0111 | 100.625 | 98.0 | -0.4 | -0.3 | 16.5 | 103.2 | -5.2 |
| 10 | 1111 0110 | 116.250 | 116.1 | 0.2 | -0.1 | 18.1 | 119.0 | -2.9 |
| 11 | 1111 0101 | 131.875 | 136.5 | 0.2 | 0.3 | 20.4 | 134.8 | 1.7 |
| 12 | 1111 0100 | 147.500 | 152.1 | -0.0 | 0.3 | 15.6 | 150.6 | 1.4 |
| 13 | 1111 0011 | 163.125 | 164.1 | -0.3 | -0.3 | 12.0 | 166.4 | -2.3 |
| 14 | 1111 0010 | 178.750 | 185.8 | -0.4 | -0.3 | 21.7 | 182.3 | 3.6 |
| 15 | 1111 0001 | 194.375 | 203.2 | 0.2 | 0.0 | 17.4 | 198.1 | 5.1 |
| 16 | 1111 0000 | 210.000 | 210.5 | 0.0 | 0.1 | 7.3 | 213.9 | -3.4 |
| 17 | 1110 1111 | 225.625 | 225.1 | -0.4 | 0.1 | 14.5 | 229.7 | -4.7 |
| 18 | 1110 1110 | 241.250 | 241.0 | -0.3 | -0.3 | 15.9 | 245.6 | -4.6 |
| 19 | 1110 1101 | 256.875 | 263.7 | -0.1 | -0.3 | 22.8 | 261.4 | 2.4 |
| 20 | 1110 1100 | 272.500 | 276.5 | 0.3 | 0.4 | 12.7 | 277.2 | -0.7 |
| 21 | 1110 1011 | 288.125 | 290.9 | 0.4 | 0.4 | 14.4 | 293.0 | -2.1 |
| 22 | 1110 1010 | 303.750 | 311.3 | -0.5 | -0.1 | 20.4 | 308.8 | 2.5 |
| 23 | 1110 1001 | 319.375 | 330.1 | -0.3 | -0.2 | 18.8 | 324.7 | 5.5 |
| 24 | 1110 1000 | 335.000 | 340.6 | 0.1 | -0.0 | 10.5 | 340.5 | 0.1 |
| 25 | 1110 0111 | 350.625 | 351.8 | 0.3 | 0.3 | 11.2 | 356.3 | -4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 483
1981/11/30 14:12:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 370.4 | 0.0 | 0.2 | 18.6 | 372.1 | -1.7 |
| 27 | 1110 0101 | 381.875 | 390.7 | -0.3 | -0.2 | 20.3 | 387.9 | 2.7 |
| 28 | 1110 0100 | 397.500 | 410.4 | -0.4 | -0.3 | 19.7 | 403.8 | 6.7 |
| 29 | 1110 0011 | 413.125 | 417.9 | 0.3 | -0.0 | 7.4 | 419.6 | -1.7 |
| 30 | 1110 0010 | 428.750 | 440.0 | 0.1 | 0.3 | 22.1 | 435.4 | 4.6 |
| 31 | 1110 0001 | 444.375 | 457.2 | -0.3 | 0.0 | 17.2 | 451.2 | 6.0 |
| 32 | 1110 0000 | 460.000 | 462.7 | -0.2 | -0.1 | 5.5 | 467.1 | -4.3 |
| 33 | 1101 1111 | 475.625 | 482.8 | -2.5 | -0.2 | 20.1 | 482.9 | -0.0 |
| 34 | 1101 1110 | 491.250 | 495.1 | 0.1 | 0.2 | 12.2 | 498.7 | -3.6 |
| 35 | 1101 1101 | 506.875 | 518.8 | 0.3 | 0.3 | 23.8 | 514.5 | 4.3 |
| 36 | 1101 1100 | 522.500 | 528.6 | -0.3 | 0.0 | 9.7 | 530.3 | -1.7 |
| 37 | 1101 1011 | 538.125 | 546.3 | -0.4 | -0.3 | 17.7 | 546.2 | 0.2 |
| 38 | 1101 1010 | 553.750 | 565.2 | 0.1 | -0.1 | 18.9 | 562.0 | 3.2 |
| 39 | 1101 1001 | 569.375 | 585.0 | 0.1 | 0.2 | 19.8 | 577.8 | 7.2 |
| 40 | 1101 1000 | 585.000 | 592.6 | 0.0 | 0.1 | 7.6 | 593.6 | -1.1 |
| 41 | 1101 0111 | 600.625 | 607.1 | -0.4 | -0.3 | 14.6 | 609.4 | -2.3 |
| 42 | 1101 0110 | 616.250 | 624.6 | -0.3 | -0.2 | 17.5 | 625.3 | -0.6 |
| 43 | 1101 0101 | 631.875 | 645.6 | 0.2 | 0.0 | 21.0 | 641.1 | 4.5 |
| 44 | 1101 0100 | 647.500 | 661.3 | 0.2 | 0.3 | 15.6 | 656.9 | 4.4 |
| 45 | 1101 0011 | 663.125 | 672.8 | -0.3 | 0.1 | 11.5 | 672.7 | 0.1 |
| 46 | 1101 0010 | 678.750 | 693.5 | -0.3 | -0.3 | 20.6 | 688.6 | 4.9 |
| 47 | 1101 0001 | 694.375 | 711.8 | -0.0 | -0.2 | 18.4 | 704.4 | 7.5 |
| 48 | 1101 0000 | 710.000 | 724.5 | 0.2 | 0.3 | 12.6 | 720.2 | 4.3 |
| 49 | 1100 1111 | 725.625 | 735.6 | 0.3 | 0.2 | 11.1 | 736.0 | -0.4 |
| 50 | 1100 1110 | 741.250 | 748.4 | -0.3 | 0.0 | 12.8 | 751.8 | -3.4 |
| 51 | 1100 1101 | 756.875 | 772.1 | -0.4 | -0.2 | 23.6 | 767.7 | 4.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 484
 1981/11/30 14:12:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

HAC
TEST
S27

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5) 10 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 783.9 | 0.4 | 0.0 | 11.8 | 783.5 | 0.4 |
| 53 | 1100 1011 | 788.125 | 798.8 | 0.3 | 0.3 | 15.0 | 799.3 | -0.5 |
| 54 | 1100 1010 | 803.750 | 818.4 | -0.0 | 0.2 | 19.6 | 815.1 | 3.3 |
| 55 | 1100 1001 | 819.375 | 837.6 | -0.3 | -0.3 | 19.1 | 830.9 | 6.6 |
| 56 | 1100 1000 | 835.000 | 851.1 | -0.3 | -0.3 | 13.5 | 846.8 | 4.4 |
| 57 | 1100 0111 | 850.625 | 859.1 | 0.3 | 0.1 | 8.0 | 862.6 | -3.5 |
| 58 | 1100 0110 | 866.250 | 876.8 | 0.2 | 0.3 | 17.7 | 878.4 | -1.6 |
| 59 | 1100 0101 | 881.875 | 898.0 | -0.3 | 0.0 | 21.2 | 894.2 | 3.8 |
| 60 | 1100 0100 | 897.500 | 915.3 | 1.5 | 1.1 | 17.2 | 910.1 | 5.2 |
| 61 | 1100 0011 | 913.125 | 924.8 | 0.0 | -0.3 | 9.6 | 925.9 | -1.0 |
| 62 | 1100 0010 | 928.750 | 945.4 | 0.1 | 0.2 | 20.6 | 941.7 | 3.7 |
| 63 | 1100 0001 | 944.375 | 963.2 | 0.3 | 0.2 | 17.8 | 957.5 | 5.7 |
| 64 | 1100 0000 | 960.000 | 970.0 | -0.4 | 0.0 | 6.8 | 973.3 | -3.3 |
| 65 | 1011 1111 | 975.625 | 987.7 | -0.3 | -0.3 | 17.7 | 989.2 | -1.4 |
| 66 | 1011 1110 | 991.250 | 1002.4 | 0.2 | -0.1 | 14.7 | 1005.0 | -2.6 |
| 67 | 1011 1101 | 1006.88 | 1026.8 | 0.2 | 0.3 | 24.4 | 1020.8 | 6.0 |
| 68 | 1011 1100 | 1022.50 | 1037.5 | -0.0 | 0.2 | 10.7 | 1036.6 | 0.9 |
| 69 | 1011 1011 | 1038.13 | 1053.3 | -0.3 | -0.3 | 15.8 | 1052.4 | 0.8 |
| 70 | 1011 1010 | 1053.75 | 1072.6 | -0.3 | -0.3 | 19.3 | 1068.3 | 4.3 |
| 71 | 1011 1001 | 1069.38 | 1092.1 | 0.3 | 0.0 | 19.4 | 1084.1 | 8.0 |
| 72 | 1011 1000 | 1085.00 | 1095.6 | 0.2 | 0.3 | 3.6 | 1099.9 | -4.3 |
| 73 | 1011 0111 | 1100.63 | 1113.5 | -0.3 | 0.1 | 17.9 | 1115.7 | -2.2 |
| 74 | 1011 0110 | 1116.25 | 1131.0 | -0.3 | -0.2 | 17.5 | 1131.6 | -0.5 |
| 75 | 1011 0101 | 1131.88 | 1152.8 | 0.0 | -0.3 | 21.8 | 1147.4 | 5.5 |
| 76 | 1011 0100 | 1147.50 | 1165.7 | 0.2 | 0.3 | 12.9 | 1163.2 | 2.5 |
| 77 | 1011 0011 | 1163.13 | 1178.4 | 0.4 | 0.3 | 12.7 | 1179.0 | -0.6 |
| 78 | 1011 0010 | 1178.75 | 1199.1 | -0.3 | -0.0 | 20.7 | 1194.8 | 4.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 485.

1981/11/30 14:12:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1218.3 | -0.4 | -0.3 | 19.1 | 1210.7 | 7.6 |
| 80 | 1011 0000 | 1210.00 | 1227.0 | 0.2 | 0.1 | 8.8 | 1226.5 | 0.6 |
| 81 | 1010 1111 | 1225.63 | 1242.6 | 0.3 | 0.3 | 15.5 | 1242.3 | 0.3 |
| 82 | 1010 1110 | 1241.25 | 1253.9 | 0.0 | 0.2 | 11.3 | 1258.1 | -4.3 |
| 83 | 1010 1101 | 1256.88 | 1278.4 | -0.3 | -0.3 | 24.5 | 1273.9 | 4.4 |
| 84 | 1010 1100 | 1272.50 | 1288.8 | -0.3 | -0.3 | 10.4 | 1289.8 | -1.0 |
| 85 | 1010 1011 | 1288.13 | 1304.2 | 0.3 | 0.1 | 15.4 | 1305.6 | -1.4 |
| 86 | 1010 1010 | 1303.75 | 1324.2 | 0.2 | 0.2 | 20.0 | 1321.4 | 2.8 |
| 87 | 1010 1001 | 1319.38 | 1343.4 | -0.3 | 0.2 | 19.2 | 1337.2 | 6.2 |
| 88 | 1010 1000 | 1335.00 | 1352.7 | -0.3 | -0.3 | 9.3 | 1353.1 | -0.3 |
| 89 | 1010 0111 | 1350.63 | 1364.8 | 0.1 | -0.3 | 12.0 | 1368.9 | -4.1 |
| 90 | 1010 0110 | 1366.25 | 1382.0 | 0.3 | 0.2 | 17.2 | 1384.7 | -2.7 |
| 91 | 1010 0101 | 1381.88 | 1403.7 | 0.3 | 0.4 | 21.7 | 1400.5 | 3.2 |
| 92 | 1010 0100 | 1397.50 | 1422.0 | -0.2 | 0.0 | 18.3 | 1416.3 | 5.7 |
| 93 | 1010 0011 | 1413.13 | 1429.9 | -0.3 | -0.3 | 7.9 | 1432.2 | -2.3 |
| 94 | 1010 0010 | 1428.75 | 1450.3 | 0.3 | -0.0 | 20.4 | 1448.0 | 2.3 |
| 95 | 1010 0001 | 1444.38 | 1468.9 | 0.2 | 0.3 | 18.6 | 1463.8 | 5.1 |
| 96 | 1010 0000 | 1460.00 | 1480.0 | -0.0 | 0.2 | 11.1 | 1479.6 | 0.4 |
| 97 | 1001 1111 | 1475.63 | 1495.2 | -0.2 | -0.2 | 15.2 | 1495.4 | -0.3 |
| 98 | 1001 1110 | 1491.25 | 1505.8 | -0.2 | -0.3 | 10.6 | 1511.3 | -5.5 |
| 99 | 1001 1101 | 1506.88 | 1530.2 | 0.2 | -0.0 | 24.4 | 1527.1 | 3.1 |
| 100 | 1001 1100 | 1522.50 | 1537.5 | 0.3 | 0.3 | 7.2 | 1542.9 | -5.4 |
| 101 | 1001 1011 | 1538.13 | 1557.1 | -0.4 | 0.0 | 19.6 | 1558.7 | -1.6 |
| 102 | 1001 1010 | 1553.75 | 1575.9 | -0.2 | -0.2 | 19.8 | 1574.6 | 1.3 |
| 103 | 1001 1001 | 1569.38 | 1595.9 | -0.1 | -0.3 | 20.1 | 1590.4 | 5.6 |
| 104 | 1001 1000 | 1585.00 | 1601.4 | 0.3 | 0.2 | 5.5 | 1606.2 | -4.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 486

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)

HAC
TEST
S27

NOV 30 '81

| THRESHOLD
NUMBER | A/D
OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 11 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|----------------------------|------------------------|---|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1617.0 | 0.3 | 0.4 | 15.5 | 1622.0 | -5.1 |
| 106 | 1001 0110 | 1616.25 | 1633.9 | -0.3 | 0.0 | 16.9 | 1637.8 | -3.9 |
| 107 | 1001 0101 | 1631.88 | 1656.6 | -0.3 | -0.3 | 22.7 | 1653.7 | 3.0 |
| 108 | 1001 0100 | 1647.50 | 1669.7 | 0.3 | 0.0 | 13.0 | 1669.5 | 0.2 |
| 109 | 1001 0011 | 1663.13 | 1682.1 | 0.3 | 0.4 | 12.4 | 1685.3 | -3.2 |
| 110 | 1001 0010 | 1678.75 | 1701.5 | 0.0 | 0.3 | 19.4 | 1701.1 | 0.4 |
| 111 | 1001 0001 | 1694.38 | 1721.6 | -0.2 | -0.3 | 20.1 | 1716.9 | 4.7 |
| 112 | 1001 0000 | 1710.00 | 1736.8 | -0.3 | -0.2 | 15.2 | 1732.8 | 4.0 |
| 113 | 1000 1111 | 1725.53 | 1745.9 | 0.2 | 0.0 | 9.1 | 1748.6 | -2.7 |
| 114 | 1000 1110 | 1741.25 | 1756.8 | 0.2 | 0.3 | 10.8 | 1764.4 | -7.6 |
| 115 | 1000 1101 | 1756.88 | 1781.5 | -0.3 | -0.0 | 24.7 | 1780.2 | 1.3 |
| 116 | 1000 1100 | 1772.50 | 1791.6 | -0.2 | -0.2 | 10.1 | 1796.1 | -4.4 |
| 117 | 1000 1011 | 1788.13 | 1808.1 | 0.0 | -0.3 | 16.5 | 1811.9 | -3.8 |
| 118 | 1000 1010 | 1803.75 | 1824.2 | 0.3 | 0.3 | 16.1 | 1827.7 | -3.5 |
| 119 | 1000 1001 | 1819.38 | 1846.5 | 0.3 | 0.3 | 22.3 | 1843.5 | 3.0 |
| 120 | 1000 1000 | 1835.00 | 1858.7 | -0.2 | 0.0 | 12.2 | 1859.3 | -0.6 |
| 121 | 1000 0111 | 1850.63 | 1868.4 | -0.4 | 3.6 | 9.6 | 1875.2 | -6.8 |
| 122 | 1000 0110 | 1866.25 | 1884.7 | 0.2 | 0.0 | 16.3 | 1891.0 | -6.3 |
| 123 | 1000 0101 | 1881.88 | 1907.2 | 0.3 | 0.4 | 22.5 | 1906.8 | 0.4 |
| 124 | 1000 0100 | 1897.50 | 1924.4 | 0.0 | 0.3 | 17.2 | 1922.6 | 1.8 |
| 125 | 1000 0011 | 1913.13 | 1933.3 | -0.4 | -0.4 | 8.9 | 1938.4 | -5.2 |
| 126 | 1000 0010 | 1928.75 | 1952.9 | -0.3 | -0.2 | 19.7 | 1954.3 | -1.3 |
| 127 | 1000 0001 | 1944.38 | 1972.0 | 0.3 | 0.1 | 19.1 | 1970.1 | 1.9 |
| 128 | 1000 0000 | 1960.00 | 1982.0 | 0.4 | 0.3 | 10.0 | 1985.9 | -3.9 |
| 129 | 0111 1111 | 1975.63 | 1997.3 | -0.4 | 0.0 | 15.3 | 2001.7 | -4.4 |
| 130 | 0111 1110 | 1991.25 | 2013.6 | -0.3 | -0.3 | 16.3 | 2017.6 | -3.9 |

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2037.8 | -0.0 | -0.3 | 24.1 | 2033.4 | 4.4 |
| 132 | 0111 1100 | 2022.50 | 2050.5 | 0.3 | 0.2 | 12.7 | 2049.2 | 1.3 |
| 133 | 0111 1011 | 2038.13 | 2062.3 | 0.4 | 0.4 | 11.7 | 2065.0 | -2.8 |
| 134 | 0111 1010 | 2053.75 | 2084.6 | -0.3 | -0.0 | 22.3 | 2080.8 | 3.8 |
| 135 | 0111 1001 | 2069.38 | 2103.7 | -0.3 | -0.2 | 19.1 | 2096.7 | 7.0 |
| 136 | 0111 1000 | 2085.00 | 2107.0 | 0.2 | -0.1 | 3.3 | 2112.5 | -5.5 |
| 137 | 0111 0111 | 2100.63 | 2122.6 | 0.4 | 0.1 | 15.7 | 2128.3 | -5.7 |
| 138 | 0111 0110 | 2116.25 | 2141.6 | -0.0 | 0.2 | 19.0 | 2144.1 | -2.5 |
| 139 | 0111 0101 | 2131.88 | 2163.4 | -0.3 | -0.3 | 21.7 | 2159.9 | 3.4 |
| 140 | 0111 0100 | 2147.50 | 2179.8 | -0.2 | -0.2 | 16.5 | 2175.8 | 4.1 |
| 141 | 0111 0011 | 2163.13 | 2187.9 | 0.3 | 0.1 | 8.0 | 2191.6 | -3.7 |
| 142 | 0111 0010 | 2178.75 | 2212.8 | 1.3 | 1.4 | 24.9 | 2207.4 | 5.4 |
| 143 | 0111 0001 | 2194.38 | 2229.5 | -0.3 | 0.1 | 16.7 | 2223.2 | 6.3 |
| 144 | 0111 0000 | 2210.00 | 2238.3 | -0.2 | -0.3 | 8.8 | 2239.1 | -0.7 |
| 145 | 0110 1111 | 2225.63 | 2248.9 | 0.1 | -0.4 | 10.6 | 2254.9 | -6.0 |
| 146 | 0110 1110 | 2241.25 | 2265.0 | 0.2 | 0.2 | 16.1 | 2270.7 | -5.7 |
| 147 | 0110 1101 | 2256.88 | 2288.8 | 0.3 | 0.3 | 23.8 | 2286.5 | 2.3 |
| 148 | 0110 1100 | 2272.50 | 2300.8 | -0.3 | 0.1 | 12.0 | 2302.3 | -1.5 |
| 149 | 0110 1011 | 2288.13 | 2314.1 | -0.3 | -0.3 | 13.2 | 2318.2 | -4.1 |
| 150 | 0110 1010 | 2303.75 | 2336.3 | 0.2 | 0.1 | 22.2 | 2334.0 | 2.3 |
| 151 | 0110 1001 | 2319.38 | 2354.5 | 0.4 | 0.4 | 18.2 | 2349.8 | 4.7 |
| 152 | 0110 1000 | 2335.00 | 2363.0 | -0.1 | 0.2 | 8.5 | 2365.6 | -2.7 |
| 153 | 0110 0111 | 2350.63 | 2374.4 | -0.4 | -0.4 | 11.4 | 2381.4 | -7.1 |
| 154 | 0110 0110 | 2366.25 | 2393.2 | -0.2 | -0.1 | 18.8 | 2397.3 | -4.1 |
| 155 | 0110 0101 | 2381.88 | 2414.3 | 0.3 | 0.0 | 21.1 | 2413.1 | 1.2 |
| 156 | 0110 0100 | 2397.50 | 2434.3 | 0.3 | 0.3 | 20.0 | 2428.9 | 5.4 |
| 157 | 0110 0011 | 2413.13 | 2439.5 | -0.4 | 0.0 | 5.2 | 2444.7 | -5.2 |

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2461.7 | -0.2 | -0.3 | 22.2 | 2460.6 | 1.2 |
| 159 | 0110 0001 | 2444.38 | 2480.4 | 0.1 | -0.2 | 18.7 | 2476.4 | 4.1 |
| 160 | 0110 0000 | 2460.00 | 2486.7 | -2.9 | 0.3 | 6.3 | 2492.2 | -5.5 |
| 161 | 0101 1111 | 2475.63 | 2504.6 | 2.7 | 0.3 | 17.8 | 2508.0 | -3.4 |
| 162 | 0101 1110 | 2491.25 | 2517.1 | -0.2 | 0.0 | 12.5 | 2523.8 | -6.8 |
| 163 | 0101 1101 | 2506.88 | 2541.4 | -0.3 | -0.3 | 24.3 | 2539.7 | 1.8 |
| 164 | 0101 1100 | 2522.50 | 2555.0 | 0.2 | 0.0 | 13.6 | 2555.5 | -0.5 |
| 165 | 0101 1011 | 2538.13 | 2566.5 | 0.3 | 0.3 | 11.5 | 2571.3 | -4.8 |
| 166 | 0101 1010 | 2553.75 | 2588.1 | -0.0 | 0.2 | 21.6 | 2587.1 | 1.0 |
| 167 | 0101 1001 | 2569.38 | 2607.8 | -0.3 | -0.3 | 19.7 | 2602.9 | 4.8 |
| 168 | 0101 1000 | 2585.00 | 2613.1 | -0.3 | -0.3 | 5.4 | 2618.8 | -5.6 |
| 169 | 0101 0111 | 2600.63 | 2626.8 | 0.3 | -0.1 | 13.7 | 2634.6 | -7.8 |
| 170 | 0101 0110 | 2616.25 | 2644.9 | 0.3 | 0.4 | 18.1 | 2650.4 | -5.5 |
| 171 | 0101 0101 | 2631.88 | 2668.1 | -0.2 | 0.0 | 23.2 | 2666.2 | 1.8 |
| 172 | 0101 0100 | 2647.50 | 2683.6 | -0.2 | -0.2 | 15.6 | 2682.1 | 1.6 |
| 173 | 0101 0011 | 2663.13 | 2692.4 | -0.1 | -0.4 | 8.7 | 2697.9 | -5.5 |
| 174 | 0101 0010 | 2678.75 | 2713.2 | 0.2 | 0.2 | 20.8 | 2713.7 | -0.5 |
| 175 | 0101 0001 | 2694.38 | 2733.0 | 0.4 | 0.3 | 19.8 | 2729.5 | 3.4 |
| 176 | 0101 0000 | 2710.00 | 2746.4 | -0.3 | -0.0 | 13.4 | 2745.3 | 1.0 |
| 177 | 0100 1111 | 2725.63 | 2756.2 | 1.4 | 1.4 | 9.9 | 2761.2 | -4.9 |
| 178 | 0100 1110 | 2741.25 | 2768.3 | 0.2 | -0.0 | 12.0 | 2777.0 | -8.7 |
| 179 | 0100 1101 | 2756.88 | 2792.5 | 0.3 | 0.4 | 24.2 | 2792.8 | -0.3 |
| 180 | 0100 1100 | 2772.50 | 2803.8 | 0.1 | 0.4 | 11.3 | 2808.6 | -4.8 |
| 181 | 0100 1011 | 2788.13 | 2818.3 | -0.4 | -0.4 | 14.4 | 2824.4 | -6.2 |
| 182 | 0100 1010 | 2803.75 | 2840.0 | -0.9 | -0.2 | 21.7 | 2840.3 | -0.3 |
| 183 | 0100 1001 | 2819.38 | 2858.7 | 0.5 | 0.5 | 18.7 | 2856.1 | 2.6 |

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3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=5) NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|--------------|---------------------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS LOWER | RATIO= 1:1
UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2870.2 | 0.3 | 0.3 | 11.5 | 2871.9 | -1.7 |
| 185 | 0100 0111 | 2850.63 | 2878.7 | -0.4 | 0.0 | 8.5 | 2887.7 | -9.0 |
| 186 | 0100 0110 | 2866.25 | 2896.8 | -0.3 | -0.3 | 18.1 | 2903.6 | -6.8 |
| 187 | 0100 0101 | 2881.88 | 2919.6 | 0.0 | -0.3 | 22.8 | 2919.4 | 0.2 |
| 188 | 0100 0100 | 2897.50 | 2939.1 | 0.3 | 0.4 | 19.6 | 2935.2 | 3.9 |
| 189 | 0100 0011 | 2913.13 | 2943.4 | 0.4 | 0.4 | 4.3 | 2951.0 | -7.6 |
| 190 | 0100 0010 | 2928.75 | 2965.2 | -0.3 | -0.3 | 21.8 | 2966.8 | -1.7 |
| 191 | 0100 0001 | 2944.38 | 2984.3 | -0.0 | 0.0 | 19.1 | 2982.7 | 1.6 |
| 192 | 0100 0000 | 2960.00 | 2992.0 | 0.4 | 0.1 | 7.7 | 2998.5 | -6.5 |
| 193 | 0011 1111 | 2975.63 | 3007.4 | 0.3 | 0.3 | 15.4 | 3014.3 | -6.9 |
| 194 | 0011 1110 | 2991.25 | 3022.8 | -0.1 | 0.2 | 15.4 | 3030.1 | -7.4 |
| 195 | 0011 1101 | 3006.88 | 3047.6 | -0.4 | -0.3 | 24.9 | 3046.0 | 1.7 |
| 196 | 0011 1100 | 3022.50 | 3059.9 | -0.2 | -0.2 | 12.2 | 3061.8 | -1.9 |
| 197 | 0011 1011 | 3038.13 | 3072.5 | 0.3 | 0.4 | 12.6 | 3077.6 | -5.1 |
| 198 | 0011 1010 | 3053.75 | 3095.1 | 0.2 | 0.3 | 22.5 | 3093.4 | 1.7 |
| 199 | 0011 1001 | 3069.38 | 3115.5 | -0.4 | 0.0 | 20.5 | 3109.2 | 6.3 |
| 200 | 0011 1000 | 3085.00 | 3116.3 | -0.3 | -0.4 | 0.8 | 3125.1 | -8.7 |
| 201 | 0011 0111 | 3100.63 | 3133.6 | -0.0 | -0.4 | 17.3 | 3140.9 | -7.3 |
| 202 | 0011 0110 | 3116.25 | 3151.7 | 0.2 | 0.2 | 18.0 | 3155.7 | -5.0 |
| 203 | 0011 0101 | 3131.88 | 3174.8 | 0.3 | 0.4 | 23.1 | 3172.5 | 2.2 |
| 204 | 0011 0100 | 3147.50 | 3189.8 | -0.3 | -0.3 | 15.1 | 3188.3 | 1.5 |
| 205 | 0011 0011 | 3163.13 | 3199.2 | -0.4 | -0.4 | 9.4 | 3204.2 | -5.0 |
| 206 | 0011 0010 | 3178.75 | 3224.5 | 0.1 | -0.0 | 25.3 | 3220.0 | 4.5 |
| 207 | 0011 0001 | 3194.38 | 3240.6 | 0.3 | 0.3 | 16.1 | 3235.8 | 5.3 |
| 208 | 0011 0000 | 3210.00 | 3251.1 | 0.0 | 0.3 | 10.5 | 3251.6 | -0.5 |
| 209 | 0010 1111 | 3225.63 | 3260.7 | -0.3 | -0.3 | 9.5 | 3267.5 | -6.8 |

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3.5.4.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5)

HAC
TFST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3276.2 | -0.3 | -0.3 | 15.5 | 3283.3 | -7.1 |
| 211 | 0010 1101 | 3256.88 | 3300.5 | 0.2 | 0.3 | 24.3 | 3299.1 | 1.4 |
| 212 | 0010 1100 | 3272.50 | 3310.9 | 0.2 | 0.2 | 10.4 | 3314.9 | -4.0 |
| 213 | 0010 1011 | 3288.13 | 3326.2 | -0.4 | 0.1 | 15.3 | 3330.7 | -4.5 |
| 214 | 0010 1010 | 3303.75 | 3348.8 | -0.3 | -0.2 | 22.5 | 3346.6 | 2.2 |
| 215 | 0010 1001 | 3319.38 | 3369.0 | -0.0 | -0.3 | 20.2 | 3362.4 | 6.6 |
| 216 | 0010 1000 | 3335.00 | 3374.8 | 0.4 | 4.6 | 5.8 | 3378.2 | -3.4 |
| 217 | 0010 0111 | 3350.63 | 3386.8 | 0.6 | 0.8 | 12.0 | 3394.0 | -7.3 |
| 218 | 0010 0110 | 3366.25 | 3405.5 | -0.4 | 0.0 | 18.8 | 3409.8 | -4.3 |
| 219 | 0010 0101 | 3381.88 | 3428.7 | -0.6 | -0.5 | 23.2 | 3425.7 | 3.1 |
| 220 | 0010 0100 | 3397.50 | 3446.7 | 0.3 | 0.0 | 18.0 | 3441.5 | 5.2 |
| 221 | 0010 0011 | 3413.13 | 3452.1 | 0.9 | 1.0 | 5.3 | 3457.3 | -5.3 |
| 222 | 0010 0010 | 3428.75 | 3479.1 | -0.1 | 0.3 | 27.1 | 3473.1 | 6.0 |
| 223 | 0010 0001 | 3444.38 | 3494.6 | -0.4 | -0.4 | 15.5 | 3489.0 | 5.7 |
| 224 | 0010 0000 | 3460.00 | 3501.8 | -0.3 | -0.3 | 7.1 | 3504.8 | -3.0 |
| 225 | 0001 1111 | 3475.63 | 3518.7 | 0.1 | -0.1 | 17.0 | 3520.6 | -1.8 |
| 226 | 0001 1110 | 3491.25 | 3530.6 | 0.2 | 0.3 | 11.9 | 3536.4 | -5.8 |
| 227 | 0001 1101 | 3506.88 | 3556.3 | -0.5 | 0.0 | 25.6 | 3552.2 | 4.1 |
| 228 | 0001 1100 | 3522.50 | 3569.2 | -0.2 | -0.3 | 12.9 | 3568.1 | 1.2 |
| 229 | 0001 1011 | 3538.13 | 3582.1 | 0.0 | -0.4 | 12.8 | 3583.9 | -1.8 |
| 230 | 0001 1010 | 3553.75 | 3603.8 | 0.3 | 0.3 | 21.7 | 3599.7 | 4.1 |
| 231 | 0001 1001 | 3569.38 | 3624.3 | 0.3 | 0.4 | 20.5 | 3615.5 | 8.8 |
| 232 | 0001 1000 | 3585.00 | 3627.6 | -0.4 | -0.3 | 3.4 | 3631.3 | -3.7 |
| 233 | 0001 0111 | 3600.63 | 3643.9 | -0.4 | -0.3 | 16.2 | 3647.2 | -3.3 |
| 234 | 0001 0110 | 3616.25 | 3660.7 | 0.2 | 0.1 | 16.8 | 3663.0 | -2.3 |
| 235 | 0001 0101 | 3631.88 | 3684.3 | 0.4 | 0.5 | 23.6 | 3678.8 | 5.5 |
| 236 | 0001 0100 | 3647.50 | 3699.1 | 0.0 | 0.3 | 14.8 | 3694.6 | 4.5 |

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 1981/11/30 14:12:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=5) NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3709.5 | -0.4 | -0.4 | 10.3 | 3710.5 | -1.0 |
| 238 | 0001 0010 | 3678.75 | 3730.0 | -0.4 | -0.3 | 20.6 | 3726.3 | 3.8 |
| 239 | 0001 0001 | 3694.38 | 3750.7 | 0.1 | 0.0 | 20.7 | 3742.1 | 8.6 |
| 240 | 0001 0000 | 3710.00 | 3766.4 | 0.2 | 0.3 | 15.6 | 3757.9 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3774.1 | -0.3 | 0.1 | 7.8 | 3773.7 | 0.4 |
| 242 | 0000 1110 | 3741.25 | 3786.3 | -0.4 | -0.3 | 12.1 | 3789.6 | -3.3 |
| 243 | 0000 1101 | 3756.88 | 3811.7 | -0.2 | -0.4 | 25.4 | 3805.4 | 6.3 |
| 244 | 0000 1100 | 3772.50 | 3821.3 | 0.2 | 0.4 | 9.6 | 3821.2 | 0.1 |
| 245 | 0000 1011 | 3788.13 | 3837.2 | 0.4 | 0.4 | 15.9 | 3837.0 | 0.2 |
| 246 | 0000 1010 | 3803.75 | 3854.8 | -0.4 | -0.3 | 17.6 | 3852.8 | 2.0 |
| 247 | 0000 1001 | 3819.38 | 3880.3 | -0.6 | -0.5 | 25.4 | 3868.7 | 11.6 |
| 248 | 0000 1000 | 3835.00 | 3889.3 | 0.3 | -0.1 | 9.0 | 3884.5 | 4.8 |
| 249 | 0000 0111 | 3850.63 | 3899.2 | 0.2 | 0.4 | 9.9 | 3900.3 | -1.1 |
| 250 | 0000 0110 | 3866.25 | 3916.5 | -0.3 | 0.2 | 17.3 | 3916.1 | 0.4 |
| 251 | 0000 0101 | 3881.88 | 3940.5 | -0.5 | -0.3 | 24.0 | 3932.0 | 8.5 |
| 252 | 0000 0100 | 3897.50 | 3959.6 | -0.4 | -0.3 | 19.1 | 3947.8 | 11.8 |
| 253 | 0000 0011 | 3913.13 | 3965.0 | 0.3 | 0.4 | 5.4 | 3963.6 | 1.4 |
| 254 | 0000 0010 | 3928.75 | 3985.9 | 0.2 | 0.3 | 20.9 | 3979.4 | 6.5 |
| 255 | 0000 0001 | 3944.38 | 4007.0 | -0.5 | 0.0 | 21.0 | 3995.2 | 11.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 492
1981/11/30 14:19:06 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)
S U M M A R Y

EX 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.843X - 41.3MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.395%
OFFSET IS: -41.3MV
COEFFICIENT OF DETERMINATION IS: $R^2 = .99998600$
ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.386MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.1MV | 222 | 15.913MV | 0.8MV | 200 | 5.517MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.8MV | 14 | -0.030MV | -0.5MV | 247 | .230MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 7.1MV | 128 | 0.067MV | -0.8MV | 144 | .593MV |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 493
1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

REV 30 78

| THRESHOLD | A/D | OUTPUT | IDEAL | ANALOG INPUT VOLTAGE (MV) | | | INCREASE | BEST FIT STRAIGHT LINE | |
|-----------|-----------|--------|-------|---------------------------|-------|-------|-----------|------------------------|-----------|
| NUMBER | THRESHOLD | | VALUE | NOMINAL | LOWER | UPPER | FROM PREV | POINT | DEVIATION |
| | | | (MV) | | | | THRESHOLD | | |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | | |
|----|------|------|---------|-------|------|------|------|-------|------|
| 1 | 1111 | 1111 | -24.375 | -30.0 | 0.0 | 0.3 | | -25.5 | -4.6 |
| 2 | 1111 | 1110 | -8.750 | -16.8 | 0.2 | 0.2 | 13.2 | -9.6 | -7.2 |
| 3 | 1111 | 1101 | 6.875 | 6.9 | -0.4 | -0.0 | 23.7 | 6.2 | 0.7 |
| 4 | 1111 | 1100 | 22.500 | 19.2 | -0.2 | -0.2 | 12.3 | 22.0 | -2.8 |
| 5 | 1111 | 1011 | 38.125 | 34.5 | 0.2 | 0.0 | 15.2 | 37.9 | -3.4 |
| 6 | 1111 | 1010 | 53.750 | 53.8 | 0.1 | 0.2 | 19.3 | 53.7 | 0.1 |
| 7 | 1111 | 1001 | 69.375 | 73.5 | -0.0 | 0.2 | 19.7 | 69.6 | 3.9 |
| 8 | 1111 | 1000 | 85.000 | 78.7 | -0.2 | -0.3 | 5.2 | 85.4 | -6.7 |
| 9 | 1111 | 0111 | 100.625 | 95.8 | -0.3 | -0.3 | 17.1 | 101.3 | -5.4 |
| 10 | 1111 | 0110 | 116.250 | 113.3 | 0.1 | 0.0 | 17.5 | 117.1 | -3.8 |
| 11 | 1111 | 0101 | 131.875 | 134.1 | 0.3 | 0.3 | 20.8 | 132.9 | 1.2 |
| 12 | 1111 | 0100 | 147.500 | 149.5 | 0.0 | 0.2 | 15.4 | 148.8 | 0.7 |
| 13 | 1111 | 0011 | 163.125 | 162.1 | -0.2 | -0.2 | 12.6 | 164.6 | -2.6 |
| 14 | 1111 | 0010 | 178.750 | 183.5 | 0.8 | -0.5 | 21.4 | 180.5 | 3.0 |
| 15 | 1111 | 0001 | 194.375 | 201.0 | 0.1 | 0.2 | 17.5 | 196.3 | 4.6 |
| 16 | 1111 | 0000 | 210.000 | 210.2 | 0.3 | 0.2 | 9.3 | 212.2 | -1.9 |
| 17 | 1110 | 1111 | 225.625 | 225.0 | -0.3 | 0.0 | 14.8 | 228.0 | -3.0 |
| 18 | 1110 | 1110 | 241.250 | 238.3 | -0.3 | -0.2 | 13.3 | 243.8 | -5.5 |
| 19 | 1110 | 1101 | 256.875 | 261.5 | 0.2 | -0.0 | 23.2 | 259.7 | 1.8 |
| 20 | 1110 | 1100 | 272.500 | 275.0 | 0.2 | 0.2 | 13.5 | 275.5 | -0.6 |
| 21 | 1110 | 1011 | 288.125 | 289.2 | -0.0 | 0.3 | 14.2 | 291.4 | -2.2 |
| 22 | 1110 | 1010 | 303.750 | 309.3 | -0.3 | -0.2 | 20.0 | 307.2 | 2.0 |
| 23 | 1110 | 1001 | 319.375 | 328.3 | -0.2 | -0.2 | 19.0 | 323.1 | 5.3 |
| 24 | 1110 | 1000 | 335.000 | 338.1 | 0.1 | -0.1 | 9.8 | 338.9 | -0.8 |
| 25 | 1110 | 0111 | 350.625 | 350.2 | 0.2 | 2.3 | 12.1 | 354.7 | -4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 494

1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

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REV 30 78

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 9110 | 366.250 | 368.2 | -0.3 | -0.0 | 18.0 | 370.6 | -2.4 |
| 27 | 1110 0101 | 381.875 | 389.0 | -0.3 | -0.2 | 20.8 | 386.4 | 2.5 |
| 28 | 1110 0100 | 397.500 | 408.8 | -0.1 | -0.2 | 19.8 | 402.3 | 6.5 |
| 29 | 1110 0011 | 413.125 | 416.3 | 0.2 | 0.2 | 7.5 | 418.1 | -1.8 |
| 30 | 1110 0010 | 428.750 | 437.1 | 0.2 | 0.2 | 20.8 | 434.0 | 3.1 |
| 31 | 1110 0001 | 444.375 | 455.3 | -0.2 | 0.1 | 18.2 | 449.8 | 5.5 |
| 32 | 1110 0000 | 460.000 | 460.7 | -0.2 | -0.1 | 5.4 | 465.7 | -4.9 |
| 33 | 1101 1111 | 475.625 | 480.7 | 0.1 | 0.1 | 20.0 | 481.5 | -0.8 |
| 34 | 1101 1110 | 491.250 | 493.0 | 0.1 | 0.2 | 12.3 | 497.3 | -4.3 |
| 35 | 1101 1101 | 506.875 | 517.6 | -0.1 | 0.3 | 24.6 | 513.2 | 4.4 |
| 36 | 1101 1100 | 522.500 | 529.5 | -0.2 | -0.2 | 11.8 | 529.0 | 0.4 |
| 37 | 1101 1011 | 538.125 | 545.1 | -0.3 | -0.3 | 15.6 | 544.9 | 0.2 |
| 38 | 1101 1010 | 553.750 | 563.2 | 0.2 | 0.0 | 18.1 | 560.7 | 2.5 |
| 39 | 1101 1001 | 569.375 | 583.8 | 0.2 | 0.3 | 20.6 | 576.6 | 7.2 |
| 40 | 1101 1000 | 585.000 | 591.0 | -0.3 | -0.0 | 7.2 | 592.4 | -1.4 |
| 41 | 1101 0111 | 600.625 | 608.1 | -0.2 | -0.2 | 17.1 | 608.2 | -0.1 |
| 42 | 1101 0110 | 616.250 | 622.7 | -0.1 | -0.2 | 14.6 | 624.1 | -1.3 |
| 43 | 1101 0101 | 631.875 | 644.3 | 0.2 | 0.3 | 21.5 | 639.9 | 4.4 |
| 44 | 1101 0100 | 647.500 | 659.5 | 0.0 | 0.2 | 15.2 | 655.8 | 3.7 |
| 45 | 1101 0011 | 663.125 | 671.7 | -0.3 | 0.0 | 12.2 | 671.6 | 0.1 |
| 46 | 1101 0010 | 678.750 | 691.9 | -0.3 | -0.2 | 20.2 | 687.5 | 4.4 |
| 47 | 1101 0001 | 694.375 | 710.2 | 0.1 | 0.1 | 18.3 | 703.3 | 6.9 |
| 48 | 1101 0000 | 710.000 | 723.6 | 0.2 | 0.2 | 13.4 | 719.1 | 4.5 |
| 49 | 1100 1111 | 725.625 | 734.2 | -0.0 | 0.2 | 10.6 | 735.0 | -0.8 |
| 50 | 1100 1110 | 741.250 | 746.8 | -0.2 | -0.2 | 12.6 | 750.8 | -4.1 |
| 51 | 1100 1101 | 756.875 | 771.2 | -0.3 | -0.3 | 24.5 | 766.7 | 4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 495

1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

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NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 783.3 | 0.1 | 0.0 | 12.0 | 782.5 | 0.8 |
| 53 | 1100 1011 | 788.125 | 798.0 | 0.2 | 0.3 | 14.7 | 798.4 | -0.3 |
| 54 | 1100 1010 | 803.750 | 817.2 | -0.2 | 0.0 | 19.1 | 814.2 | 3.0 |
| 55 | 1100 1001 | 819.375 | 836.9 | -0.3 | -0.2 | 19.8 | 830.0 | 6.9 |
| 56 | 1100 1000 | 835.000 | 849.6 | 0.0 | -0.3 | 12.7 | 845.9 | 3.8 |
| 57 | 1100 0111 | 850.625 | 860.7 | 0.1 | 0.1 | 11.0 | 861.7 | -1.1 |
| 58 | 1100 0110 | 866.250 | 875.3 | 0.2 | 0.2 | 14.7 | 877.6 | -2.2 |
| 59 | 1100 0101 | 881.875 | 897.1 | -0.2 | 0.0 | 21.7 | 893.4 | 3.7 |
| 60 | 1100 0100 | 897.500 | 915.9 | -0.1 | -0.0 | 18.8 | 909.3 | 6.6 |
| 61 | 1100 0011 | 913.125 | 923.9 | 0.2 | -0.0 | 8.0 | 925.1 | -1.2 |
| 62 | 1100 0010 | 928.750 | 943.7 | 0.2 | 0.3 | 19.8 | 940.9 | 2.8 |
| 63 | 1100 0001 | 944.375 | 962.4 | -0.1 | 0.1 | 18.7 | 956.8 | 5.6 |
| 64 | 1100 0000 | 960.000 | 970.0 | -0.2 | -0.2 | 7.6 | 972.6 | -2.7 |
| 65 | 1011 1111 | 975.625 | 990.1 | -0.2 | -0.2 | 20.2 | 988.5 | 1.7 |
| 66 | 1011 1110 | 991.250 | 1001.2 | 0.2 | -0.0 | 11.1 | 1004.3 | -3.1 |
| 67 | 1011 1101 | 1006.88 | 1025.6 | 0.3 | 0.4 | 24.3 | 1020.2 | 5.4 |
| 68 | 1011 1100 | 1022.50 | 1036.9 | -0.2 | 0.0 | 11.3 | 1036.0 | 0.9 |
| 69 | 1011 1011 | 1038.13 | 1052.9 | -0.3 | -0.2 | 16.0 | 1051.8 | 1.0 |
| 70 | 1011 1010 | 1053.75 | 1071.7 | 0.0 | -0.2 | 18.8 | 1067.7 | 4.0 |
| 71 | 1011 1001 | 1069.38 | 1092.0 | 0.2 | 0.2 | 20.3 | 1083.5 | 8.5 |
| 72 | 1011 1000 | 1085.00 | 1094.7 | 0.2 | 0.2 | 2.7 | 1099.4 | -4.6 |
| 73 | 1011 0111 | 1100.63 | 1116.5 | -0.2 | 0.0 | 21.8 | 1115.2 | 1.3 |
| 74 | 1011 0110 | 1116.25 | 1130.0 | -0.2 | -0.2 | 13.5 | 1131.1 | -1.1 |
| 75 | 1011 0101 | 1131.88 | 1152.1 | 0.2 | 0.0 | 22.1 | 1146.9 | 5.2 |
| 76 | 1011 0100 | 1147.50 | 1165.4 | 0.2 | 0.3 | 13.3 | 1162.7 | 2.6 |
| 77 | 1011 0011 | 1163.13 | 1178.4 | 0.0 | 0.1 | 13.0 | 1178.6 | -0.2 |
| 78 | 1011 0010 | 1178.75 | 1201.0 | -0.3 | -0.3 | 22.6 | 1194.4 | 6.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 496
 1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1217.8 | -0.1 | -0.2 | 16.8 | 1210.3 | 7.5 |
| 80 | 1011 0000 | 1210.00 | 1229.4 | 0.2 | -0.0 | 11.6 | 1226.1 | 3.3 |
| 81 | 1010 1111 | 1225.63 | 1241.7 | 0.2 | 0.2 | 12.2 | 1242.0 | -0.3 |
| 82 | 1010 1110 | 1241.25 | 1253.2 | -0.1 | 0.0 | 11.5 | 1257.8 | -4.6 |
| 83 | 1010 1101 | 1256.88 | 1277.4 | -0.3 | -0.2 | 24.1 | 1273.6 | 3.7 |
| 84 | 1010 1100 | 1272.50 | 1288.7 | 0.0 | -0.2 | 11.3 | 1289.5 | -0.8 |
| 85 | 1010 1011 | 1288.13 | 1304.2 | 0.3 | 0.3 | 15.5 | 1305.3 | -1.1 |
| 86 | 1010 1010 | 1303.75 | 1323.5 | 0.2 | 0.2 | 19.3 | 1321.2 | 2.3 |
| 87 | 1010 1001 | 1319.38 | 1343.8 | -0.2 | -0.0 | 20.3 | 1337.0 | 6.8 |
| 88 | 1010 1000 | 1335.00 | 1351.9 | -0.2 | -0.1 | 8.1 | 1352.9 | -0.9 |
| 89 | 1010 0111 | 1350.63 | 1367.7 | 0.2 | -0.1 | 15.8 | 1368.7 | -1.0 |
| 90 | 1010 0110 | 1366.25 | 1381.3 | 0.2 | 0.2 | 13.6 | 1384.5 | -3.2 |
| 91 | 1010 0101 | 1381.88 | 1403.4 | 0.0 | 0.3 | 22.0 | 1400.4 | 3.0 |
| 92 | 1010 0100 | 1397.50 | 1421.2 | -0.2 | -0.2 | 17.8 | 1416.2 | 5.0 |
| 93 | 1010 0011 | 1413.13 | 1429.9 | -0.3 | -0.3 | 8.7 | 1432.1 | -2.1 |
| 94 | 1010 0010 | 1428.75 | 1449.9 | 0.2 | -0.0 | 19.9 | 1447.9 | 2.0 |
| 95 | 1010 0001 | 1444.38 | 1468.9 | 0.1 | 0.1 | 19.0 | 1463.8 | 5.1 |
| 96 | 1010 0000 | 1460.00 | 1478.7 | -0.3 | 0.1 | 9.8 | 1479.6 | -0.9 |
| 97 | 1001 1111 | 1475.63 | 1494.7 | -0.2 | -0.2 | 16.0 | 1495.4 | -0.7 |
| 98 | 1001 1110 | 1491.25 | 1505.2 | 0.0 | -0.2 | 10.4 | 1511.3 | -6.1 |
| 99 | 1001 1101 | 1506.88 | 1529.7 | 0.2 | 0.2 | 24.5 | 1527.1 | 2.6 |
| 100 | 1001 1100 | 1522.50 | 1541.2 | 0.2 | 0.1 | 11.5 | 1543.0 | -1.7 |
| 101 | 1001 1011 | 1538.13 | 1557.3 | -0.3 | -0.0 | 16.1 | 1558.8 | -1.5 |
| 102 | 1001 1010 | 1553.75 | 1575.5 | -0.2 | -0.2 | 18.1 | 1574.7 | 0.8 |
| 103 | 1001 1001 | 1569.38 | 1596.5 | 0.3 | -0.0 | 21.1 | 1590.5 | 6.0 |
| 104 | 1001 1000 | 1585.00 | 1601.1 | 0.2 | 0.2 | 4.6 | 1606.3 | -5.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 497
1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1620.5 | 0.0 | 0.2 | 19.4 | 1622.2 | -1.7 |
| 106 | 1001 0110 | 1616.25 | 1633.5 | -0.3 | -0.3 | 13.0 | 1638.0 | -4.5 |
| 107 | 1001 0101 | 1631.88 | 1656.3 | -0.2 | -0.2 | 22.8 | 1653.9 | 2.5 |
| 108 | 1001 0100 | 1647.50 | 1669.3 | 0.2 | 0.1 | 13.0 | 1669.7 | -0.4 |
| 109 | 1001 0011 | 1663.13 | 1682.5 | 0.2 | 0.2 | 13.2 | 1685.6 | -3.0 |
| 110 | 1001 0010 | 1678.75 | 1701.6 | -0.2 | -0.0 | 19.1 | 1701.4 | 0.2 |
| 111 | 1001 0001 | 1694.38 | 1721.7 | -0.3 | -0.2 | 20.1 | 1717.2 | 4.5 |
| 112 | 1001 0000 | 1710.00 | 1737.3 | -0.0 | -0.1 | 15.6 | 1733.1 | 4.3 |
| 113 | 1000 1111 | 1725.63 | 1745.8 | 0.2 | 0.2 | 8.4 | 1748.9 | -3.1 |
| 114 | 1000 1110 | 1741.25 | 1756.4 | 0.3 | 0.2 | 10.6 | 1764.8 | -8.4 |
| 115 | 1000 1101 | 1756.88 | 1781.0 | -0.2 | 0.0 | 24.6 | 1780.6 | 0.4 |
| 116 | 1000 1100 | 1772.50 | 1792.2 | -0.2 | -0.2 | 11.1 | 1796.5 | -4.3 |
| 117 | 1000 1011 | 1788.13 | 1808.3 | 0.3 | 0.0 | 16.2 | 1812.3 | -4.0 |
| 118 | 1000 1010 | 1803.75 | 1826.8 | 0.1 | 0.2 | 18.4 | 1828.1 | -1.4 |
| 119 | 1000 1001 | 1819.38 | 1847.8 | -0.0 | 0.2 | 21.0 | 1844.0 | 3.8 |
| 120 | 1000 1000 | 1835.00 | 1859.1 | -0.1 | -0.2 | 11.3 | 1859.8 | -0.8 |
| 121 | 1000 0111 | 1850.63 | 1871.7 | -0.5 | -0.4 | 12.6 | 1875.7 | -4.0 |
| 122 | 1000 0110 | 1866.25 | 1884.4 | 0.2 | -0.0 | 12.8 | 1891.5 | -7.1 |
| 123 | 1000 0101 | 1881.88 | 1907.1 | 0.3 | 0.3 | 22.6 | 1907.4 | -0.3 |
| 124 | 1000 0100 | 1897.50 | 1925.5 | -0.2 | 0.0 | 18.5 | 1923.2 | 2.3 |
| 125 | 1000 0011 | 1913.13 | 1933.8 | -0.2 | -0.2 | 8.2 | 1939.0 | -5.2 |
| 126 | 1000 0010 | 1928.75 | 1953.0 | -0.1 | -0.2 | 19.2 | 1954.9 | -1.9 |
| 127 | 1000 0001 | 1944.38 | 1972.5 | 0.1 | 0.1 | 19.5 | 1970.7 | 1.7 |
| 128 | 1000 0000 | 1960.00 | 1983.8 | 0.4 | 7.1 | 11.3 | 1986.6 | -2.8 |
| 129 | 0111 1111 | 1975.63 | 2002.3 | -0.4 | -0.1 | 18.5 | 2002.4 | -0.2 |
| 130 | 0111 1110 | 1991.25 | 2013.7 | -0.2 | -0.2 | 11.4 | 2018.3 | -4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 498
 1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

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| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER UPPER | POINT | | DEVIATION | |
| 131 | 0111 1101 | 2006.88 | 2037.5 | 0.2 | 0.1 | 23.8 | 2034.1 | 3.4 |
| 132 | 0111 1100 | 2022.50 | 2050.9 | 0.3 | 0.2 | 13.4 | 2049.9 | 0.9 |
| 133 | 0111 1011 | 2038.13 | 2063.2 | 0.1 | 0.3 | 12.3 | 2065.8 | -2.6 |
| 134 | 0111 1010 | 2053.75 | 2084.8 | -0.2 | -0.3 | 21.6 | 2081.6 | 3.2 |
| 135 | 0111 1001 | 2069.38 | 2104.0 | -0.3 | -0.2 | 19.2 | 2097.5 | 6.6 |
| 136 | 0111 1000 | 2085.00 | 2107.2 | 0.2 | -0.0 | 3.2 | 2113.3 | -6.1 |
| 137 | 0111 0111 | 2100.63 | 2123.5 | 0.2 | 0.3 | 16.3 | 2129.2 | -5.7 |
| 138 | 0111 0110 | 2116.25 | 2142.1 | -0.3 | -0.0 | 18.6 | 2145.0 | -2.9 |
| 139 | 0111 0101 | 2131.88 | 2164.3 | -0.2 | -0.1 | 22.2 | 2160.8 | 3.5 |
| 140 | 0111 0100 | 2147.50 | 2180.4 | -0.0 | -0.1 | 16.1 | 2176.7 | 3.7 |
| 141 | 0111 0011 | 2163.13 | 2188.9 | 0.1 | 0.1 | 8.5 | 2192.5 | -3.6 |
| 142 | 0111 0010 | 2178.75 | 2214.2 | 0.1 | 0.2 | 25.3 | 2208.4 | 5.8 |
| 143 | 0111 0001 | 2194.38 | 2230.3 | -0.2 | 0.0 | 16.1 | 2224.2 | 6.0 |
| 144 | 0111 0000 | 2210.00 | 2259.3 | -0.4 | -0.8 | 9.1 | 2240.1 | -0.7 |
| 145 | 0110 1111 | 2225.63 | 2253.8 | 0.2 | -0.1 | 14.4 | 2255.9 | -2.1 |
| 146 | 0110 1110 | 2241.25 | 2265.2 | 0.2 | 0.2 | 11.4 | 2271.7 | -6.6 |
| 147 | 0110 1101 | 2256.88 | 2289.2 | -0.1 | 0.2 | 24.0 | 2287.6 | 1.6 |
| 148 | 0110 1100 | 2272.50 | 2301.8 | -0.2 | -0.1 | 12.6 | 2303.4 | -1.6 |
| 149 | 0110 1011 | 2288.13 | 2315.0 | -0.0 | -0.1 | 13.1 | 2319.3 | -4.3 |
| 150 | 0110 1010 | 2303.75 | 2336.7 | 0.3 | 0.0 | 21.8 | 2335.1 | 1.6 |
| 151 | 0110 1001 | 2319.38 | 2355.1 | 0.4 | 0.5 | 18.4 | 2351.0 | 4.1 |
| 152 | 0110 1000 | 2335.00 | 2363.8 | -0.3 | 0.0 | 8.7 | 2366.8 | -3.0 |
| 153 | 0110 0111 | 2350.63 | 2375.6 | -0.4 | -0.3 | 11.8 | 2382.6 | -7.0 |
| 154 | 0110 0110 | 2366.25 | 2393.6 | 0.0 | -0.2 | 18.0 | 2398.5 | -4.8 |
| 155 | 0110 0101 | 2381.88 | 2415.6 | 0.2 | 0.1 | 22.0 | 2414.3 | 1.3 |
| 156 | 0110 0100 | 2397.50 | 2435.4 | 0.1 | 0.1 | 19.8 | 2430.2 | 5.2 |
| 157 | 0110 0011 | 2413.13 | 2440.6 | -0.3 | -0.1 | 5.2 | 2446.0 | -5.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 499
1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2465.6 | -0.3 | -0.2 | 24.9 | 2461.9 | 3.7 |
| 159 | 0110 0001 | 2444.38 | 2481.3 | 0.2 | 0.1 | 15.7 | 2477.7 | 3.6 |
| 160 | 0110 0000 | 2460.00 | 2484.3 | 0.1 | 0.4 | 3.0 | 2493.5 | -9.2 |
| 161 | 0101 1111 | 2475.63 | 2506.6 | 0.0 | 0.2 | 22.3 | 2509.4 | -2.8 |
| 162 | 0101 1110 | 2491.25 | 2517.6 | -0.2 | -0.3 | 11.0 | 2525.2 | -7.6 |
| 163 | 0101 1101 | 2506.88 | 2542.1 | -0.3 | -0.3 | 24.5 | 2541.1 | 1.0 |
| 164 | 0101 1100 | 2522.50 | 2556.0 | 0.2 | -0.1 | 13.9 | 2556.9 | -0.9 |
| 165 | 0101 1011 | 2538.13 | 2567.9 | 0.2 | 0.2 | 11.9 | 2572.8 | -4.8 |
| 166 | 0101 1010 | 2553.75 | 2588.9 | -0.3 | -0.0 | 21.0 | 2588.6 | 0.3 |
| 167 | 0101 1001 | 2569.38 | 2608.7 | -0.4 | -0.3 | 19.8 | 2604.4 | 4.3 |
| 168 | 0101 1000 | 2585.00 | 2614.1 | -0.0 | -0.3 | 5.4 | 2620.3 | -6.1 |
| 169 | 0101 0111 | 2600.63 | 2633.3 | 0.2 | 0.2 | 19.1 | 2636.1 | -2.9 |
| 170 | 0101 0110 | 2616.25 | 2645.8 | -0.1 | 0.0 | 12.5 | 2652.0 | -6.2 |
| 171 | 0101 0101 | 2631.88 | 2668.7 | -0.2 | 0.1 | 22.9 | 2667.8 | 0.9 |
| 172 | 0101 0100 | 2647.50 | 2684.8 | -0.2 | -0.1 | 16.0 | 2683.7 | 1.1 |
| 173 | 0101 0011 | 2663.13 | 2693.5 | 0.2 | 0.0 | 8.7 | 2699.5 | -6.0 |
| 174 | 0101 0010 | 2678.75 | 2718.1 | 0.1 | 0.1 | 24.6 | 2715.3 | 2.8 |
| 175 | 0101 0001 | 2694.38 | 2734.6 | -0.1 | 0.2 | 16.5 | 2731.2 | 3.4 |
| 176 | 0101 0000 | 2710.00 | 2748.1 | -0.3 | -0.2 | 13.4 | 2747.0 | 1.0 |
| 177 | 0100 1111 | 2725.63 | 2758.4 | -0.2 | -0.2 | 10.3 | 2762.9 | -4.5 |
| 178 | 0100 1110 | 2741.25 | 2769.1 | 0.2 | -0.1 | 10.6 | 2778.7 | -9.7 |
| 179 | 0100 1101 | 2756.88 | 2793.5 | 0.3 | 0.3 | 24.4 | 2794.6 | -1.1 |
| 180 | 0100 1100 | 2772.50 | 2805.9 | -0.3 | -0.0 | 12.5 | 2810.4 | -4.5 |
| 181 | 0100 1011 | 2788.13 | 2819.9 | -0.3 | -0.3 | 14.0 | 2826.2 | -6.3 |
| 182 | 0100 1010 | 2803.75 | 2841.0 | -0.0 | -0.2 | 21.1 | 2842.1 | -1.1 |
| 183 | 0100 1001 | 2819.38 | 2860.9 | 0.2 | 0.2 | 19.9 | 2857.9 | 3.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 500

1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6) 00 30 00

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| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2871.5 | 0.1 | 0.2 | 10.6 | 2873.8 | -2.2 |
| 185 | 0100 0111 | 2850.63 | 2885.0 | -0.2 | 0.0 | 13.5 | 2889.6 | -4.6 |
| 186 | 0100 0110 | 2866.25 | 2897.7 | -0.3 | -0.3 | 12.7 | 2905.5 | -7.8 |
| 187 | 0100 0101 | 2881.88 | 2920.1 | 0.3 | -0.1 | 22.4 | 2921.3 | -1.2 |
| 188 | 0100 0100 | 2897.50 | 2940.1 | 0.2 | 0.2 | 20.0 | 2937.1 | 2.9 |
| 189 | 0100 0011 | 2913.13 | 2945.3 | 0.0 | 0.4 | 5.2 | 2953.0 | -7.7 |
| 190 | 0100 0010 | 2928.75 | 2966.4 | -0.3 | -0.2 | 21.1 | 2968.8 | -2.4 |
| 191 | 0100 0001 | 2944.38 | 2986.4 | -0.1 | -0.1 | 20.0 | 2984.7 | 1.7 |
| 192 | 0100 0000 | 2960.00 | 2994.4 | 0.2 | 0.2 | 8.0 | 3000.5 | -6.1 |
| 193 | 0011 1111 | 2975.63 | 3011.8 | 0.1 | 2.1 | 17.4 | 3016.4 | -4.6 |
| 194 | 0011 1110 | 2991.25 | 3024.2 | -0.3 | 0.0 | 12.3 | 3032.2 | -8.1 |
| 195 | 0011 1101 | 3006.88 | 3048.9 | -0.3 | -0.2 | 24.8 | 3048.0 | 0.9 |
| 196 | 0011 1100 | 3022.50 | 3062.2 | 0.0 | -0.4 | 13.3 | 3063.9 | -1.6 |
| 197 | 0011 1011 | 3038.13 | 3074.6 | 0.3 | 0.2 | 12.3 | 3079.7 | -5.1 |
| 198 | 0011 1010 | 3053.75 | 3093.3 | 0.2 | 0.2 | 21.7 | 3095.6 | 0.7 |
| 199 | 0011 1001 | 3069.38 | 3116.8 | -0.3 | -0.2 | 20.5 | 3111.4 | 5.4 |
| 200 | 0011 1000 | 3085.00 | 3117.6 | -0.2 | -0.2 | 0.8 | 3127.3 | -9.6 |
| 201 | 0011 0111 | 3100.63 | 3135.6 | 0.2 | 0.1 | 18.0 | 3143.1 | -7.5 |
| 202 | 0011 0110 | 3116.25 | 3153.0 | 0.2 | 0.3 | 17.4 | 3158.9 | -5.9 |
| 203 | 0011 0101 | 3131.88 | 3176.2 | -0.0 | 0.3 | 23.1 | 3174.8 | 1.4 |
| 204 | 0011 0100 | 3147.50 | 3191.3 | -0.1 | -0.1 | 15.1 | 3190.6 | 0.7 |
| 205 | 0011 0011 | 3163.13 | 3201.3 | -0.3 | -0.3 | 10.0 | 3206.5 | -5.1 |
| 206 | 0011 0010 | 3178.75 | 3226.0 | 0.1 | 0.3 | 24.7 | 3222.3 | 3.7 |
| 207 | 0011 0001 | 3194.38 | 3243.1 | 0.1 | 0.2 | 17.0 | 3238.2 | 4.9 |
| 208 | 0011 0000 | 3210.00 | 3255.4 | -0.2 | 0.1 | 12.3 | 3254.0 | 1.3 |
| 209 | 0010 1111 | 3225.63 | 3265.3 | -0.3 | -0.2 | 9.9 | 3269.8 | -4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 501
1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=6)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3277.7 | -0.1 | -0.3 | 12.4 | 3285.7 | -8.0 |
| 211 | 0010 1101 | 3256.88 | 3302.1 | 0.3 | 0.3 | 24.4 | 3301.5 | 0.6 |
| 212 | 0010 1100 | 3272.50 | 3313.2 | 0.3 | 0.4 | 11.1 | 3317.4 | -4.2 |
| 213 | 0010 1011 | 3288.13 | 3328.5 | -0.3 | -0.3 | 15.3 | 3333.2 | -4.7 |
| 214 | 0010 1010 | 3303.75 | 3350.2 | -0.3 | -0.2 | 21.7 | 3349.1 | 1.2 |
| 215 | 0010 1001 | 3319.38 | 3370.3 | 0.1 | 0.0 | 20.0 | 3364.9 | 5.4 |
| 216 | 0010 1000 | 3335.00 | 3381.1 | 0.2 | 0.2 | 10.8 | 3380.7 | 0.3 |
| 217 | 0010 0111 | 3350.63 | 3389.4 | -0.1 | 0.2 | 8.3 | 3396.6 | -7.2 |
| 218 | 0010 0110 | 3366.25 | 3407.1 | -0.3 | -0.2 | 17.7 | 3412.4 | -5.3 |
| 219 | 0010 0101 | 3381.88 | 3430.3 | -0.3 | -0.2 | 23.2 | 3428.3 | 2.0 |
| 220 | 0010 0100 | 3397.50 | 3449.0 | 0.2 | 0.3 | 18.7 | 3444.1 | 4.9 |
| 221 | 0010 0011 | 3413.13 | 3455.1 | 0.3 | 0.3 | 6.0 | 3460.0 | -4.9 |
| 222 | 0010 0010 | 3428.75 | 3481.2 | -0.4 | 0.0 | 26.1 | 3475.8 | 5.4 |
| 223 | 0010 0001 | 3444.38 | 3497.5 | -0.4 | -0.3 | 16.3 | 3491.6 | 5.8 |
| 224 | 0010 0000 | 3460.00 | 3503.7 | 0.0 | -0.3 | 6.2 | 3507.5 | -3.8 |
| 225 | 0001 1111 | 3475.63 | 3520.6 | 0.2 | 0.2 | 16.9 | 3523.3 | -2.7 |
| 226 | 0001 1110 | 3471.25 | 3532.4 | 0.2 | 0.3 | 11.8 | 3539.2 | -6.8 |
| 227 | 0001 1101 | 3506.88 | 3558.2 | -0.4 | -0.1 | 25.8 | 3555.0 | 3.2 |
| 228 | 0001 1100 | 3522.50 | 3571.8 | -0.3 | -0.3 | 13.6 | 3570.9 | 1.0 |
| 229 | 0001 1011 | 3538.13 | 3584.5 | 0.3 | -0.1 | 12.6 | 3586.7 | -2.2 |
| 230 | 0001 1010 | 3553.75 | 3605.7 | 0.2 | 0.4 | 21.2 | 3602.5 | 3.1 |
| 231 | 0001 1001 | 3569.38 | 3626.4 | -0.1 | 0.3 | 20.7 | 3618.4 | 8.0 |
| 232 | 0001 1000 | 3585.00 | 3629.6 | -0.1 | -0.2 | 3.2 | 3634.2 | -4.6 |
| 233 | 0001 0111 | 3600.63 | 3651.4 | -0.4 | -0.3 | 21.8 | 3650.1 | 1.3 |
| 234 | 0001 0110 | 3616.25 | 3662.8 | 0.2 | 0.3 | 11.3 | 3665.9 | -3.2 |
| 235 | 0001 0101 | 3631.88 | 3686.5 | 0.1 | 0.3 | 23.7 | 3681.8 | 4.7 |
| 236 | 0001 0100 | 3647.50 | 3701.8 | -0.3 | -0.0 | 15.3 | 3697.6 | 4.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 502

1981/11/30 14:19:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=4)

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| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO-
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3712.3 | -0.4 | -0.2 | 10.5 | 3713.4 | -1.1 |
| 238 | 0001 0010 | 3678.75 | 3732.3 | -0.1 | -0.2 | 20.0 | 3729.3 | 3.0 |
| 239 | 0001 0001 | 3694.38 | 3755.2 | 0.2 | 0.3 | 22.9 | 3745.1 | 10.0 |
| 240 | 0001 0000 | 3710.00 | 3769.5 | 0.2 | 0.3 | 14.3 | 3761.0 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3776.4 | -0.3 | -0.3 | 6.9 | 3776.8 | -0.4 |
| 242 | 0000 1110 | 3741.25 | 3788.4 | -0.4 | -0.3 | 12.0 | 3792.7 | -4.2 |
| 243 | 0000 1101 | 3756.88 | 3813.6 | 0.1 | 0.0 | 25.2 | 3808.5 | 5.1 |
| 244 | 0000 1100 | 3772.50 | 3824.3 | 0.2 | 0.3 | 10.7 | 3824.3 | -0.0 |
| 245 | 0000 1011 | 3788.13 | 3840.4 | -0.1 | 0.3 | 16.0 | 3840.2 | 0.2 |
| 246 | 0000 1010 | 3803.75 | 3857.3 | -0.3 | 4.3 | 16.9 | 3856.0 | 1.3 |
| 247 | 0000 1001 | 3819.38 | 3882.6 | -0.5 | -0.2 | 25.2 | 3871.9 | 10.7 |
| 248 | 0000 1000 | 3835.00 | 3891.9 | 0.2 | 0.4 | 9.3 | 3887.7 | 4.2 |
| 249 | 0000 0111 | 3850.63 | 3907.0 | 0.1 | 0.2 | 15.1 | 3903.6 | 3.5 |
| 250 | 0000 0110 | 3866.25 | 3919.1 | -0.4 | 0.0 | 12.0 | 3919.4 | -0.3 |
| 251 | 0000 0101 | 3881.88 | 3942.9 | -0.5 | -0.2 | 23.8 | 3935.2 | 7.7 |
| 252 | 0000 0100 | 3897.50 | 3961.8 | -0.1 | -0.2 | 18.9 | 3951.1 | 10.7 |
| 253 | 0000 0011 | 3913.13 | 3968.2 | 0.2 | 0.2 | 6.4 | 3966.9 | 1.3 |
| 254 | 0000 0010 | 3928.75 | 3993.4 | 0.1 | 0.2 | 25.2 | 3982.8 | 10.7 |
| 255 | 0000 0001 | 3944.38 | 4011.8 | -0.4 | -0.2 | 18.4 | 3998.6 | 13.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 503
 1981/11/30 14:25:43 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7)
 S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.834X - 39.9MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.336%
 OFFSET IS: -39.9MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998500$
 ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.607MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| | | | | | |
|---------|-------------|----------|---------|-------------|--------------------|
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 27.0MV | 231 | 15.910MV | 0.7MV | 200 | 5.779MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| | | | | | |
|---------|-------------|----------|---------|-------------|--------------------|
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 0.7MV | 103 | -0.042MV | -1.4MV | 207 | .403MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| | | | | | |
|---------|-------------|----------|---------|-------------|--------------------|
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 0.7MV | 156 | -0.003MV | -0.9MV | 144 | .423MV |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 2 PAGE 504

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=7)



REV 30 '81

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|--|------------------------|---|------------------------------------|---|
|--|------------------------|---|------------------------------------|---|

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -30.2 | 0.3 | 0.5 | | -24.0 | -6.2 |
| 2 | 1111 1110 | -8.750 | -14.7 | -0.1 | 0.3 | 15.3 | -8.2 | -6.5 |
| 3 | 1111 1101 | 6.875 | 8.9 | -0.5 | -0.4 | 23.6 | 7.6 | 1.3 |
| 4 | 1111 1100 | 22.500 | 22.1 | -0.4 | -0.4 | 13.1 | 23.5 | -1.4 |
| 5 | 1111 1011 | 38.125 | 36.2 | 0.4 | -0.0 | 14.1 | 39.3 | -3.1 |
| 6 | 1111 1010 | 53.750 | 53.9 | 0.3 | 0.4 | 17.7 | 55.1 | -1.2 |
| 7 | 1111 1001 | 69.375 | 76.1 | -0.5 | 0.0 | 22.2 | 71.0 | 5.2 |
| 8 | 1111 1000 | 85.000 | 81.0 | -0.4 | -0.4 | 4.9 | 86.8 | -5.8 |
| 9 | 1111 0111 | 100.625 | 97.6 | 0.0 | -0.4 | 16.6 | 102.6 | -5.0 |
| 10 | 1111 0110 | 116.250 | 115.2 | 0.3 | 0.3 | 17.5 | 118.5 | -3.3 |
| 11 | 1111 0101 | 131.875 | 136.3 | 0.3 | 0.4 | 21.1 | 134.3 | 2.0 |
| 12 | 1111 0100 | 147.500 | 152.7 | -0.5 | 0.0 | 16.4 | 150.1 | 2.6 |
| 13 | 1111 0011 | 163.125 | 163.9 | -0.5 | -0.4 | 11.1 | 166.0 | -2.1 |
| 14 | 1111 0010 | 178.750 | 184.4 | 0.2 | 0.0 | 20.5 | 181.8 | 2.6 |
| 15 | 1111 0001 | 194.375 | 202.8 | 0.3 | 0.5 | 18.4 | 197.6 | 5.1 |
| 16 | 1111 0000 | 210.000 | 212.0 | -0.0 | 0.5 | 9.2 | 213.5 | -1.5 |
| 17 | 1110 1111 | 225.625 | 224.9 | -0.5 | -0.4 | 12.9 | 229.3 | -4.4 |
| 18 | 1110 1110 | 241.250 | 240.2 | -0.3 | -0.4 | 15.4 | 245.1 | -4.9 |
| 19 | 1110 1101 | 256.875 | 263.0 | 0.3 | -0.0 | 22.8 | 261.0 | 2.1 |
| 20 | 1110 1100 | 272.500 | 276.7 | 0.4 | 0.4 | 13.6 | 276.8 | -0.1 |
| 21 | 1110 1011 | 288.125 | 291.1 | -0.5 | 0.0 | 14.5 | 292.6 | -1.5 |
| 22 | 1110 1010 | 303.750 | 309.4 | -0.4 | -0.4 | 18.2 | 308.5 | 0.9 |
| 23 | 1110 1001 | 319.375 | 330.4 | -0.1 | -0.4 | 21.0 | 324.3 | 6.1 |
| 24 | 1110 1000 | 335.000 | 340.1 | 0.0 | 0.0 | 9.6 | 340.1 | -0.1 |
| 25 | 1110 0111 | 350.625 | 351.6 | 0.4 | 0.5 | 11.5 | 356.0 | -4.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 505

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=7)

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NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 370.0 | -0.4 | -0.3 | 18.4 | 371.8 | -1.8 |
| 27 | 1110 0101 | 381.875 | 390.9 | -0.5 | -0.3 | 20.9 | 387.6 | 3.2 |
| 28 | 1110 0100 | 397.500 | 410.6 | 0.4 | 0.0 | 19.7 | 403.5 | 7.1 |
| 29 | 1110 0011 | 413.125 | 417.6 | 0.4 | 0.5 | 7.0 | 419.3 | -1.7 |
| 30 | 1110 0010 | 428.750 | 438.6 | -0.1 | 0.3 | 21.0 | 435.1 | 3.5 |
| 31 | 1110 0001 | 444.375 | 457.4 | -0.4 | -0.4 | 18.8 | 451.0 | 6.4 |
| 32 | 1110 0000 | 460.000 | 462.2 | -0.3 | -0.3 | 4.8 | 466.8 | -4.6 |
| 33 | 1101 1111 | 475.625 | 479.9 | 0.4 | 0.5 | 17.7 | 482.6 | -2.8 |
| 34 | 1101 1110 | 491.250 | 494.5 | 0.2 | 0.3 | 14.6 | 498.0 | -4.0 |
| 35 | 1101 1101 | 506.875 | 518.9 | -0.5 | 0.0 | 24.4 | 514.3 | 4.6 |
| 36 | 1101 1100 | 522.500 | 531.4 | -0.4 | -0.3 | 12.5 | 530.1 | 1.3 |
| 37 | 1101 1011 | 538.125 | 546.4 | -0.1 | -0.5 | 15.0 | 546.0 | 0.5 |
| 38 | 1101 1010 | 553.750 | 562.8 | 0.4 | 0.4 | 16.4 | 561.8 | 1.0 |
| 39 | 1101 1001 | 569.375 | 585.4 | 0.4 | 0.4 | 22.5 | 577.6 | 7.7 |
| 40 | 1101 1000 | 585.000 | 592.7 | -0.3 | -0.3 | 7.3 | 593.5 | -0.8 |
| 41 | 1101 0111 | 600.625 | 607.2 | -0.5 | -0.5 | 14.5 | 609.3 | -2.2 |
| 42 | 1101 0110 | 616.250 | 623.9 | 0.3 | -0.0 | 16.7 | 625.1 | -1.3 |
| 43 | 1101 0101 | 631.875 | 645.5 | 0.3 | 0.5 | 21.6 | 641.0 | 4.5 |
| 44 | 1101 0100 | 647.500 | 661.2 | 0.0 | 0.6 | 15.7 | 656.8 | 4.4 |
| 45 | 1101 0011 | 663.125 | 673.0 | -0.5 | -0.4 | 11.8 | 672.6 | 0.3 |
| 46 | 1101 0010 | 678.750 | 692.8 | -0.4 | -0.4 | 19.9 | 688.5 | 4.3 |
| 47 | 1101 0001 | 694.375 | 712.0 | 0.4 | 0.4 | 19.2 | 704.3 | 7.7 |
| 48 | 1101 0000 | 710.000 | 724.5 | 0.4 | 0.4 | 12.5 | 720.1 | 4.3 |
| 49 | 1100 1111 | 725.625 | 733.7 | -0.4 | 0.0 | 9.2 | 736.0 | -2.3 |
| 50 | 1100 1110 | 741.250 | 748.2 | -0.4 | -0.4 | 14.5 | 751.8 | -3.6 |
| 51 | 1100 1101 | 756.875 | 772.1 | -0.1 | -0.5 | 23.8 | 767.6 | 4.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 506

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=7)

HAC
TFST
S27

030 W

| THRESHOLD
NUMBER | A/D
OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|----------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 784.4 | 0.3 | 0.4 | 12.3 | 783.5 | 0.9 |
| 53 | 1100 1011 | 788.125 | 798.9 | 0.4 | 0.4 | 14.5 | 799.3 | -0.4 |
| 54 | 1100 1010 | 803.750 | 816.7 | -0.3 | -0.3 | 17.8 | 815.2 | 1.5 |
| 55 | 1100 1001 | 819.375 | 838.4 | -0.5 | -0.4 | 21.7 | 831.0 | 7.4 |
| 56 | 1100 1000 | 835.000 | 850.4 | 0.3 | -0.0 | 12.0 | 846.8 | 3.6 |
| 57 | 1100 0111 | 850.625 | 859.3 | 0.4 | 0.5 | 8.9 | 862.7 | -3.4 |
| 58 | 1100 0110 | 866.250 | 876.4 | 0.0 | 0.3 | 17.1 | 878.5 | -2.1 |
| 59 | 1100 0101 | 881.875 | 898.1 | -0.4 | -0.4 | 21.7 | 894.3 | 3.8 |
| 60 | 1100 0100 | 897.500 | 918.2 | -0.4 | -0.4 | 20.1 | 910.2 | 8.0 |
| 61 | 1100 0011 | 913.125 | 924.7 | 0.5 | 0.5 | 6.4 | 926.0 | -1.3 |
| 62 | 1100 0010 | 928.750 | 944.7 | 0.4 | 0.4 | 20.0 | 941.8 | 2.9 |
| 63 | 1100 0001 | 944.375 | 964.3 | -0.5 | 0.0 | 19.6 | 957.7 | 6.7 |
| 64 | 1100 0000 | 960.000 | 974.6 | -0.3 | -0.4 | 10.3 | 973.5 | 1.1 |
| 65 | 1011 1111 | 975.625 | 988.0 | 0.0 | -0.4 | 13.4 | 989.3 | -1.3 |
| 66 | 1011 1110 | 991.250 | 1002.2 | 0.4 | 0.4 | 14.1 | 1005.2 | -3.0 |
| 67 | 1011 1101 | 1006.88 | 1026.5 | 0.5 | 0.5 | 24.3 | 1021.0 | 5.5 |
| 68 | 1011 1100 | 1022.50 | 1038.6 | -0.3 | -0.3 | 12.1 | 1036.8 | 1.8 |
| 69 | 1011 1011 | 1038.13 | 1053.7 | -0.4 | -0.4 | 15.0 | 1052.7 | 1.0 |
| 70 | 1011 1010 | 1053.75 | 1070.0 | 0.3 | -0.1 | 16.3 | 1068.5 | 1.5 |
| 71 | 1011 1001 | 1069.38 | 1093.2 | 0.4 | 0.4 | 23.2 | 1084.3 | 8.9 |
| 72 | 1011 1000 | 1085.00 | 1095.9 | -0.0 | 0.3 | 2.7 | 1100.2 | -4.3 |
| 73 | 1011 0111 | 1100.63 | 1114.0 | -0.5 | -0.4 | 18.1 | 1116.0 | -2.0 |
| 74 | 1011 0110 | 1116.25 | 1130.9 | -0.3 | -0.3 | 16.9 | 1131.8 | -0.9 |
| 75 | 1011 0101 | 1131.88 | 1152.9 | 0.4 | 0.4 | 22.0 | 1147.7 | 5.2 |
| 76 | 1011 0100 | 1147.50 | 1167.1 | 0.3 | 0.3 | 14.1 | 1163.5 | 3.6 |
| 77 | 1011 0011 | 1163.13 | 1179.4 | -0.4 | -0.1 | 12.4 | 1179.3 | 0.1 |
| 78 | 1011 0010 | 1178.75 | 1199.3 | -0.3 | -0.3 | 19.9 | 1195.2 | 4.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 507
 1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7)

HAC
TEST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 77 | 1011 0001 | 1194.38 | 1219.5 | -0.1 | -0.4 | 20.2 | 1211.0 | 8.5 |
| 80 | 1011 0000 | 1210.00 | 1230.0 | 0.4 | 0.5 | 10.4 | 1226.8 | 3.2 |
| 81 | 1010 1111 | 1225.63 | 1239.3 | 0.5 | 0.5 | 9.3 | 1242.7 | -3.3 |
| 82 | 1010 1110 | 1241.25 | 1254.2 | -0.4 | -0.4 | 14.9 | 1258.5 | -4.3 |
| 83 | 1010 1101 | 1256.88 | 1278.6 | -0.4 | -0.4 | 24.4 | 1274.3 | 4.3 |
| 84 | 1010 1100 | 1272.50 | 1289.3 | 0.5 | -0.0 | 10.7 | 1290.2 | -0.9 |
| 85 | 1010 1011 | 1288.13 | 1304.8 | 0.4 | 0.4 | 15.5 | 1306.0 | -1.2 |
| 86 | 1010 1010 | 1303.75 | 1321.6 | 0.0 | 0.4 | 16.8 | 1321.9 | -0.2 |
| 87 | 1010 1001 | 1319.38 | 1344.8 | -0.4 | -0.4 | 23.2 | 1337.7 | 7.2 |
| 88 | 1010 1000 | 1335.00 | 1352.9 | -0.3 | -0.3 | 8.0 | 1353.5 | -0.6 |
| 89 | 1010 0111 | 1350.63 | 1365.0 | 0.4 | 0.4 | 12.1 | 1369.3 | -4.4 |
| 90 | 1010 0110 | 1366.25 | 1382.0 | 0.4 | 0.4 | 17.0 | 1385.2 | -3.2 |
| 91 | 1010 0101 | 1381.88 | 1404.6 | -0.5 | 0.1 | 22.6 | 1401.0 | 3.6 |
| 92 | 1010 0100 | 1397.50 | 1422.5 | -0.4 | -0.4 | 17.9 | 1416.8 | 5.7 |
| 93 | 1010 0011 | 1413.13 | 1430.7 | -0.0 | -0.5 | 8.2 | 1432.7 | -2.0 |
| 94 | 1010 0010 | 1428.75 | 1450.1 | 0.5 | 0.4 | 19.4 | 1448.5 | 1.6 |
| 95 | 1010 0001 | 1444.38 | 1470.2 | 0.4 | 0.4 | 20.1 | 1464.3 | 5.9 |
| 96 | 1010 0000 | 1460.00 | 1477.5 | -0.4 | -0.4 | 7.2 | 1480.2 | -2.7 |
| 97 | 1001 1111 | 1475.63 | 1492.5 | -0.5 | -0.5 | 15.1 | 1496.0 | -3.5 |
| 98 | 1001 1110 | 1491.25 | 1505.8 | 0.3 | -0.0 | 13.2 | 1511.8 | -6.1 |
| 99 | 1001 1101 | 1506.88 | 1531.4 | 0.4 | 0.4 | 25.6 | 1527.7 | 3.7 |
| 100 | 1001 1100 | 1522.50 | 1542.1 | 0.0 | 0.4 | 10.7 | 1543.5 | -1.4 |
| 101 | 1001 1011 | 1538.13 | 1557.9 | -0.4 | -0.4 | 15.8 | 1559.3 | -1.4 |
| 102 | 1001 1010 | 1553.75 | 1576.2 | -0.4 | -0.5 | 18.2 | 1575.2 | 1.0 |
| 103 | 1001 1001 | 1569.38 | 1596.8 | 0.7 | 0.7 | 20.6 | 1591.0 | 5.8 |
| 104 | 1001 1000 | 1585.00 | 1602.0 | 0.3 | 0.3 | 5.2 | 1606.8 | -4.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 508

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7) 07/30/81

HAC
TEST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (M")
LEVELS RATIO= 1:1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1618.1 | -0.5 | 0.0 | 16.1 | 1622.7 | -4.5 |
| 106 | 1001 0110 | 1616.25 | 1634.4 | -0.4 | -0.4 | 16.2 | 1638.5 | -4.1 |
| 107 | 1001 0101 | 1631.88 | 1657.4 | -0.0 | -0.5 | 23.0 | 1654.3 | 3.1 |
| 108 | 1001 0100 | 1647.50 | 1670.8 | 0.4 | 0.4 | 13.4 | 1670.2 | 0.6 |
| 109 | 1001 0011 | 1663.13 | 1683.0 | 0.4 | 0.4 | 12.2 | 1686.0 | -3.0 |
| 110 | 1001 0010 | 1678.75 | 1702.4 | -0.4 | -0.4 | 19.4 | 1701.8 | 0.5 |
| 111 | 1001 0001 | 1694.38 | 1723.4 | -0.4 | -0.4 | 21.0 | 1717.7 | 5.7 |
| 112 | 1001 0000 | 1710.00 | 1737.7 | 0.4 | -0.0 | 14.3 | 1733.5 | 4.2 |
| 113 | 1000 1111 | 1725.63 | 1747.5 | 0.4 | 0.5 | 9.8 | 1749.3 | -1.8 |
| 114 | 1000 1110 | 1741.25 | 1757.1 | 0.0 | 0.4 | 9.6 | 1765.2 | -8.1 |
| 115 | 1000 1101 | 1756.88 | 1783.0 | -0.6 | -0.6 | 25.9 | 1781.0 | 2.0 |
| 116 | 1000 1100 | 1772.50 | 1793.0 | 0.0 | -0.5 | 10.0 | 1796.8 | -3.8 |
| 117 | 1000 1011 | 1788.13 | 1808.7 | 0.5 | 0.5 | 15.7 | 1812.7 | -4.0 |
| 118 | 1000 1010 | 1803.75 | 1824.6 | 0.4 | 0.4 | 15.8 | 1828.5 | -4.0 |
| 119 | 1000 1001 | 1819.38 | 1848.6 | -0.6 | -0.0 | 24.1 | 1844.3 | 4.3 |
| 120 | 1000 1000 | 1835.00 | 1859.4 | 0.3 | 0.2 | 10.7 | 1860.2 | -0.8 |
| 121 | 1000 0111 | 1850.63 | 1869.3 | 0.0 | -0.5 | 9.9 | 1876.0 | -6.7 |
| 122 | 1000 0110 | 1866.25 | 1885.0 | 0.4 | 0.4 | 15.7 | 1891.8 | -6.8 |
| 123 | 1000 0101 | 1881.88 | 1908.0 | -0.1 | 0.5 | 23.0 | 1907.7 | 0.4 |
| 124 | 1000 0100 | 1897.50 | 1926.7 | -0.4 | -0.5 | 18.6 | 1923.5 | 3.2 |
| 125 | 1000 0011 | 1913.13 | 1934.4 | -0.5 | -0.5 | 7.7 | 1939.4 | -5.0 |
| 126 | 1000 0010 | 1928.75 | 1953.2 | 0.3 | -0.0 | 18.8 | 1955.2 | -2.0 |
| 127 | 1000 0001 | 1944.38 | 1973.8 | 0.4 | 0.4 | 20.6 | 1971.0 | 2.8 |
| 128 | 1000 0000 | 1960.00 | 1990.1 | 0.0 | 0.3 | 16.3 | 1986.9 | 3.2 |
| 129 | 0111 1111 | 1975.63 | 1998.4 | -0.4 | -0.4 | 8.3 | 2002.7 | -4.3 |
| 130 | 0111 1110 | 1991.25 | 2014.3 | -0.0 | -0.4 | 16.0 | 2018.5 | -4.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 509

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7)

HAC
TFST
S27

NOV 30 1981

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2039.6 | 0.4 | -0.6 | 24.6 | 2034.4 | 4.6 |
| 132 | 0111 1100 | 2022.50 | 2052.3 | 0.3 | 0.3 | 13.3 | 2050.2 | 2.1 |
| 133 | 0111 1011 | 2038.13 | 2064.0 | -0.5 | 0.0 | 11.7 | 2066.0 | -2.0 |
| 134 | 0111 1010 | 2053.75 | 2081.9 | -0.5 | -0.4 | 17.9 | 2081.9 | 0.1 |
| 135 | 0111 1001 | 2069.38 | 2104.3 | 0.0 | -0.5 | 22.3 | 2097.7 | 6.6 |
| 136 | 0111 1000 | 2085.00 | 2107.8 | 0.4 | 0.4 | 3.5 | 2113.5 | -5.7 |
| 137 | 0111 0111 | 2100.63 | 2123.9 | 0.0 | 0.5 | 16.1 | 2129.4 | -5.5 |
| 138 | 0111 0110 | 2116.25 | 2142.7 | -0.4 | -0.4 | 18.8 | 2145.2 | -2.5 |
| 139 | 0111 0101 | 2131.88 | 2165.1 | -0.5 | -0.5 | 22.4 | 2161.0 | 4.0 |
| 140 | 0111 0100 | 2147.50 | 2181.2 | 0.4 | 0.0 | 16.2 | 2176.9 | 4.4 |
| 141 | 0111 0011 | 2163.13 | 2189.2 | 0.5 | 0.5 | 7.9 | 2192.7 | -3.5 |
| 142 | 0111 0010 | 2178.75 | 2210.7 | -0.1 | 0.3 | 21.5 | 2208.5 | 2.2 |
| 143 | 0111 0001 | 2194.38 | 2230.1 | -0.5 | -0.5 | 19.4 | 2224.4 | 5.8 |
| 144 | 0111 0000 | 2210.00 | 2240.1 | -0.3 | -0.9 | 10.0 | 2240.2 | -0.1 |
| 145 | 0110 1111 | 2225.63 | 2249.7 | 0.5 | 0.5 | 9.5 | 2256.0 | -6.4 |
| 146 | 0110 1110 | 2241.25 | 2265.6 | 0.4 | 0.4 | 16.0 | 2271.9 | -6.2 |
| 147 | 0110 1101 | 2256.88 | 2290.7 | -0.2 | 0.0 | 25.0 | 2287.7 | 3.0 |
| 148 | 0110 1100 | 2272.50 | 2302.4 | -0.5 | -0.5 | 11.8 | 2303.5 | -1.1 |
| 149 | 0110 1011 | 2288.13 | 2315.7 | -0.0 | -0.7 | 13.2 | 2319.4 | -3.7 |
| 150 | 0110 1010 | 2303.75 | 2333.4 | 0.4 | 0.4 | 17.7 | 2335.2 | -1.8 |
| 151 | 0110 1001 | 2319.38 | 2356.3 | 0.0 | 0.5 | 22.9 | 2351.0 | 5.3 |
| 152 | 0110 1000 | 2335.00 | 2364.4 | -0.4 | -0.4 | 8.1 | 2366.9 | -2.5 |
| 153 | 0110 0111 | 2350.63 | 2375.8 | -0.4 | -0.4 | 11.4 | 2382.7 | -6.9 |
| 154 | 0110 0110 | 2366.25 | 2393.8 | 0.4 | 0.0 | 18.0 | 2398.5 | -4.7 |
| 155 | 0110 0101 | 2381.88 | 2415.9 | 0.6 | 0.6 | 22.0 | 2414.4 | 1.5 |
| 156 | 0110 0100 | 2397.50 | 2435.8 | 0.1 | 0.7 | 19.9 | 2430.2 | 5.6 |
| 157 | 0110 0011 | 2413.13 | 2441.1 | -0.4 | -0.5 | 5.4 | 2446.0 | -4.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 510

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7)

HAC
TEST
S27

REV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2462.4 | -0.0 | -0.4 | 21.3 | 2461.9 | 0.5 |
| 159 | 0110 0001 | 2444.38 | 2480.9 | 0.5 | 0.6 | 18.4 | 2477.7 | 3.2 |
| 160 | 0110 0000 | 2460.00 | 2487.8 | 0.4 | 0.4 | 6.9 | 2493.5 | -5.8 |
| 161 | 0101 1111 | 2475.63 | 2503.1 | -0.5 | -0.0 | 15.3 | 2509.4 | -6.3 |
| 162 | 0101 1110 | 2491.25 | 2518.3 | -0.5 | -0.5 | 15.1 | 2525.2 | -6.9 |
| 163 | 0101 1101 | 2506.88 | 2543.6 | -0.1 | -0.6 | 25.4 | 2541.0 | 2.6 |
| 164 | 0101 1100 | 2522.50 | 2557.2 | 0.4 | 0.4 | 13.6 | 2556.9 | 0.4 |
| 165 | 0101 1011 | 2538.13 | 2568.1 | -0.0 | 0.5 | 10.9 | 2572.7 | -4.6 |
| 166 | 0101 1010 | 2553.75 | 2585.6 | -0.5 | -0.5 | 17.5 | 2588.5 | -2.9 |
| 167 | 0101 1001 | 2569.38 | 2609.8 | -0.5 | -0.5 | 24.2 | 2604.4 | 5.5 |
| 168 | 0101 1000 | 2585.00 | 2614.4 | 0.4 | 0.0 | 4.5 | 2620.2 | -5.8 |
| 169 | 0101 0111 | 2600.63 | 2628.4 | 0.5 | 0.5 | 14.0 | 2636.0 | -7.6 |
| 170 | 0101 0110 | 2616.25 | 2645.8 | -0.1 | 0.7 | 17.4 | 2651.9 | -6.1 |
| 171 | 0101 0101 | 2631.88 | 2670.3 | -0.5 | -0.4 | 24.5 | 2667.7 | 2.6 |
| 172 | 0101 0100 | 2647.50 | 2685.9 | 0.0 | -0.4 | 15.6 | 2683.5 | 2.4 |
| 173 | 0101 0011 | 2663.13 | 2693.7 | 0.3 | 0.3 | 7.8 | 2699.4 | -5.7 |
| 174 | 0101 0010 | 2678.75 | 2714.3 | 0.4 | 0.5 | 20.5 | 2715.2 | -0.9 |
| 175 | 0101 0001 | 2694.38 | 2735.8 | -0.5 | -0.0 | 21.5 | 2731.0 | 4.7 |
| 176 | 0101 0000 | 2710.00 | 2748.3 | -0.5 | -0.4 | 12.5 | 2746.9 | 1.4 |
| 177 | 0100 1111 | 2725.63 | 2754.8 | 0.0 | -0.4 | 6.4 | 2762.7 | -8.0 |
| 178 | 0100 1110 | 2741.25 | 2769.4 | 0.5 | 0.5 | 14.6 | 2778.5 | -9.2 |
| 179 | 0100 1101 | 2756.88 | 2794.7 | -0.1 | 0.3 | 25.3 | 2794.4 | 0.3 |
| 180 | 0100 1100 | 2772.50 | 2806.3 | -0.5 | -0.5 | 11.6 | 2810.2 | -3.9 |
| 181 | 0100 1011 | 2788.13 | 2820.3 | -0.6 | -0.5 | 13.9 | 2826.0 | -5.8 |
| 182 | 0100 1010 | 2803.75 | 2837.0 | 0.4 | -0.0 | 16.7 | 2841.9 | -4.9 |
| 183 | 0100 1001 | 2819.38 | 2860.8 | 0.6 | 0.6 | 23.9 | 2857.7 | 3.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 511

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7) 0V 30 W

HAC
TFST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2871.6 | -0.2 | 0.6 | 10.8 | 2873.5 | -1.9 |
| 185 | 0100 0111 | 2850.63 | 2880.6 | -0.6 | -0.6 | 9.0 | 2889.4 | -8.8 |
| 186 | 0100 0110 | 2866.25 | 2898.2 | -0.1 | -0.5 | 17.5 | 2905.2 | -7.0 |
| 187 | 0100 0101 | 2881.88 | 2921.5 | 0.5 | 0.6 | 23.3 | 2921.0 | 0.4 |
| 188 | 0100 0100 | 2897.50 | 2940.7 | 0.4 | 0.4 | 19.2 | 2936.9 | 3.8 |
| 189 | 0100 0011 | 2913.13 | 2946.0 | -0.5 | 0.0 | 5.3 | 2952.7 | -6.8 |
| 190 | 0100 0010 | 2928.75 | 2966.4 | -0.5 | -0.5 | 20.4 | 2968.5 | -2.1 |
| 191 | 0100 0001 | 2944.38 | 2987.3 | -0.1 | -0.6 | 20.9 | 2984.4 | 2.9 |
| 192 | 0100 0000 | 2960.00 | 2994.6 | 0.4 | 0.3 | 7.2 | 3000.2 | -5.6 |
| 193 | 0011 1111 | 2975.63 | 3008.6 | 0.1 | 0.7 | 14.0 | 3016.0 | -7.4 |
| 194 | 0011 1110 | 2991.25 | 3024.6 | -0.5 | -0.5 | 15.9 | 3031.9 | -7.3 |
| 195 | 0011 1101 | 3006.88 | 3050.2 | -0.6 | -0.5 | 25.7 | 3047.7 | 2.5 |
| 196 | 0011 1100 | 3022.50 | 3062.4 | 0.2 | -0.1 | 12.1 | 3063.6 | -1.2 |
| 197 | 0011 1011 | 3038.13 | 3074.6 | 0.5 | 0.6 | 12.2 | 3079.4 | -4.8 |
| 198 | 0011 1010 | 3053.75 | 3091.7 | -0.1 | 0.5 | 17.1 | 3095.2 | -3.5 |
| 199 | 0011 1001 | 3069.38 | 3117.6 | -0.2 | -0.7 | 25.9 | 3111.1 | 6.5 |
| 200 | 0011 1000 | 3085.00 | 3118.3 | -0.0 | -0.5 | 0.7 | 3126.9 | -8.6 |
| 201 | 0011 0111 | 3100.63 | 3135.2 | 0.5 | 0.5 | 16.9 | 3142.7 | -7.5 |
| 202 | 0011 0110 | 3116.25 | 3153.1 | 0.4 | 0.5 | 17.9 | 3158.6 | -5.4 |
| 203 | 0011 0101 | 3131.88 | 3177.8 | -0.7 | 0.0 | 24.6 | 3174.4 | 3.4 |
| 204 | 0011 0100 | 3147.50 | 3192.3 | -0.4 | -0.4 | 14.5 | 3190.2 | 2.0 |
| 205 | 0011 0011 | 3163.13 | 3201.6 | -0.1 | -0.5 | 9.3 | 3206.1 | -4.4 |
| 206 | 0011 0010 | 3178.75 | 3221.6 | 0.5 | 0.5 | 20.0 | 3221.9 | -0.3 |
| 207 | 0011 0001 | 3194.38 | 3243.3 | -1.4 | 0.5 | 21.7 | 3237.7 | 5.6 |
| 208 | 0011 0000 | 3210.00 | 3255.9 | -0.4 | -0.4 | 12.5 | 3253.6 | 2.3 |
| 209 | 0010 1111 | 3225.63 | 3262.7 | -0.6 | -0.6 | 6.8 | 3269.4 | -6.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 512

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7) 01/30/81

HAC
TEST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POTNT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3277.5 | 0.3 | -0.0 | 14.9 | 3285.2 | -7.7 |
| 211 | 0010 1101 | 3256.88 | 3303.1 | 0.5 | 0.6 | 25.5 | 3301.1 | 2.0 |
| 212 | 0010 1100 | 3272.50 | 3313.1 | 0.0 | 0.6 | 10.0 | 3316.9 | -3.7 |
| 213 | 0010 1011 | 3288.13 | 3328.7 | -0.6 | -0.6 | 15.5 | 3332.7 | -4.1 |
| 214 | 0010 1010 | 3303.75 | 3346.0 | -0.1 | -0.6 | 17.4 | 3348.6 | -2.5 |
| 215 | 0010 1001 | 3319.38 | 3371.2 | 0.4 | 0.3 | 25.1 | 3364.4 | 6.8 |
| 216 | 0010 1000 | 3335.00 | 3376.7 | 0.4 | 0.4 | 5.5 | 3380.2 | -3.5 |
| 217 | 0010 0111 | 3350.63 | 3389.4 | -0.6 | 0.1 | 12.7 | 3396.1 | -6.6 |
| 218 | 0010 0110 | 3366.25 | 3407.4 | -0.6 | -0.6 | 18.0 | 3411.9 | -4.5 |
| 219 | 0010 0101 | 3381.88 | 3431.6 | -0.1 | -0.5 | 24.2 | 3427.7 | 3.9 |
| 220 | 0010 0100 | 3397.50 | 3449.4 | 0.4 | 0.5 | 17.7 | 3443.6 | 5.8 |
| 221 | 0010 0011 | 3413.13 | 3455.0 | -0.0 | 0.5 | 5.6 | 3459.4 | -4.4 |
| 222 | 0010 0010 | 3428.75 | 3476.4 | -0.6 | -0.4 | 21.4 | 3475.2 | 1.1 |
| 223 | 0010 0001 | 3444.38 | 3497.8 | -0.6 | -0.5 | 21.4 | 3491.1 | 6.7 |
| 224 | 0010 0000 | 3460.00 | 3503.3 | 0.4 | 0.0 | 5.5 | 3506.9 | -3.6 |
| 225 | 0001 1111 | 3475.63 | 3524.6 | 0.2 | 0.3 | 21.3 | 3522.7 | 1.8 |
| 226 | 0001 1110 | 3491.25 | 3532.7 | -0.3 | 0.2 | 8.1 | 3538.6 | -5.9 |
| 227 | 0001 1101 | 3506.88 | 3559.5 | -0.7 | -0.5 | 26.8 | 3554.4 | 5.1 |
| 228 | 0001 1100 | 3522.50 | 3572.6 | -0.1 | -0.5 | 13.1 | 3570.2 | 2.4 |
| 229 | 0001 1011 | 3538.13 | 3584.3 | 0.4 | 0.5 | 11.7 | 3586.1 | -1.8 |
| 230 | 0001 1010 | 3553.75 | 3600.4 | 0.4 | 0.5 | 16.1 | 3601.9 | -1.5 |
| 231 | 0001 1001 | 3569.38 | 3627.8 | -0.6 | 0.0 | 27.3 | 3617.7 | 10.0 |
| 232 | 0001 1000 | 3585.00 | 3629.6 | 0.0 | 0.0 | 1.9 | 3633.6 | -3.9 |
| 233 | 0001 0111 | 3600.63 | 3645.8 | -0.1 | 0.1 | 16.2 | 3649.4 | -3.6 |
| 234 | 0001 0110 | 3616.25 | 3662.6 | 0.5 | 0.4 | 16.8 | 3665.2 | -2.7 |
| 235 | 0001 0101 | 3631.88 | 3687.2 | -0.1 | 0.5 | 24.6 | 3681.1 | 6.1 |
| 236 | 0001 0100 | 3647.50 | 3702.2 | -0.4 | -0.5 | 15.0 | 3696.9 | 5.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 513

1981/11/30 14:25:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=7)

HAC
TEST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3712.3 | -0.7 | -0.6 | 10.1 | 3712.7 | -0.4 |
| 238 | 0001 0010 | 3678.75 | 3731.5 | 0.4 | -0.1 | 19.2 | 3728.6 | 2.9 |
| 239 | 0001 0001 | 3694.38 | 3753.8 | 0.3 | 0.5 | 22.4 | 3744.4 | 9.4 |
| 240 | 0001 0000 | 3710.00 | 3769.0 | -0.1 | 0.6 | 15.2 | 3760.2 | 8.8 |
| 241 | 0000 1111 | 3725.63 | 3780.1 | -0.7 | -0.5 | 11.0 | 3776.1 | 4.0 |
| 242 | 0000 1110 | 3741.25 | 3788.3 | -0.1 | -0.4 | 8.2 | 3791.9 | -3.6 |
| 243 | 0000 1101 | 3756.88 | 3814.3 | 0.4 | 0.6 | 26.0 | 3807.7 | 6.6 |
| 244 | 0000 1100 | 3772.50 | 3823.9 | 0.4 | 0.5 | 9.6 | 3823.6 | 0.4 |
| 245 | 0000 1011 | 3788.13 | 3840.5 | -0.6 | -0.0 | 16.6 | 3839.4 | 1.1 |
| 246 | 0000 1010 | 3803.75 | 3856.7 | -0.5 | -0.3 | 16.2 | 3855.2 | 1.5 |
| 247 | 0000 1001 | 3819.38 | 3883.5 | -0.2 | -0.5 | 26.8 | 3871.1 | 12.4 |
| 248 | 0000 1000 | 3835.00 | 3891.9 | 0.4 | 0.6 | 8.4 | 3886.9 | 5.0 |
| 249 | 0000 0111 | 3850.63 | 3901.3 | -0.1 | 0.6 | 9.4 | 3902.7 | -1.5 |
| 250 | 0000 0110 | 3866.25 | 3919.1 | -0.7 | -0.4 | 17.8 | 3918.6 | 0.5 |
| 251 | 0000 0101 | 3881.88 | 3944.0 | -0.7 | -0.5 | 24.9 | 3934.4 | 9.5 |
| 252 | 0000 0100 | 3897.50 | 3961.6 | 0.5 | 0.1 | 17.6 | 3950.2 | 11.4 |
| 253 | 0000 0011 | 3913.13 | 3966.5 | 0.0 | 0.0 | 6.8 | 3966.1 | 2.4 |
| 254 | 0000 0010 | 3928.75 | 3988.0 | -0.1 | 0.6 | 19.6 | 3981.9 | 6.1 |
| 255 | 0000 0001 | 3944.38 | 4010.8 | -0.7 | -0.5 | 22.8 | 3997.7 | 13.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 514
1981/11/30 14:32:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 />= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.857X - 41.4MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.488%
OFFSET IS: -41.4MV
COEFFICIENT OF DETERMINATION IS: $R^2 = .99998550$
ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.307MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.8MV | 243 | 15.922MV | 1.4MV | 200 | 5.954MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.6MV | 45 | -0.043MV | -0.8MV | 108 | .308MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 6.5MV | 189 | 0.081MV | -1.1MV | 108 | .712MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 515

1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -29.3 | -1.7 | -0.0 | | -25.6 | -3.7 |
| 2 | 1111 1110 | -8.750 | -17.8 | 0.2 | 0.2 | 11.5 | -9.7 | -8.1 |
| 3 | 1111 1101 | 6.875 | 7.2 | 0.2 | 0.3 | 24.9 | 6.1 | 1.0 |
| 4 | 1111 1100 | 22.500 | 19.7 | -0.3 | -0.0 | 12.6 | 22.0 | -2.3 |
| 5 | 1111 1011 | 38.125 | 38.2 | -0.3 | -0.3 | 18.5 | 37.9 | 0.4 |
| 6 | 1111 1010 | 53.750 | 50.8 | 0.3 | -0.0 | 12.5 | 53.7 | -2.9 |
| 7 | 1111 1001 | 69.375 | 73.2 | 0.3 | 0.3 | 22.5 | 69.6 | 3.7 |
| 8 | 1111 1000 | 85.000 | 79.2 | -0.0 | 0.2 | 5.9 | 85.4 | -6.3 |
| 9 | 1111 0111 | 100.625 | 98.7 | -0.4 | -0.2 | 19.5 | 101.3 | -2.6 |
| 10 | 1111 0110 | 116.250 | 112.6 | -0.4 | -0.3 | 13.9 | 117.1 | -4.5 |
| 11 | 1111 0101 | 131.875 | 135.0 | 0.2 | 0.0 | 22.3 | 133.0 | 2.0 |
| 12 | 1111 0100 | 147.500 | 149.2 | 0.2 | 0.2 | 14.2 | 148.9 | 0.4 |
| 13 | 1111 0011 | 163.125 | 162.4 | -0.3 | 1.9 | 13.1 | 164.7 | -2.4 |
| 14 | 1111 0010 | 178.750 | 181.8 | -0.3 | -0.3 | 19.4 | 180.6 | 1.2 |
| 15 | 1111 0001 | 194.375 | 201.1 | -0.1 | -0.2 | 19.3 | 196.4 | 4.7 |
| 16 | 1111 0000 | 210.000 | 207.5 | 0.2 | 0.3 | 6.4 | 212.3 | -4.8 |
| 17 | 1110 1111 | 225.625 | 225.7 | 0.2 | 0.3 | 18.1 | 228.1 | -2.5 |
| 18 | 1110 1110 | 241.250 | 237.5 | -0.3 | -0.0 | 11.9 | 244.0 | -6.5 |
| 19 | 1110 1101 | 256.875 | 262.3 | -0.4 | -0.3 | 24.8 | 259.9 | 2.5 |
| 20 | 1110 1100 | 272.500 | 278.2 | 0.2 | -0.0 | 15.9 | 275.7 | 2.5 |
| 21 | 1110 1011 | 288.125 | 292.7 | 0.2 | 0.3 | 14.5 | 291.6 | 1.1 |
| 22 | 1110 1010 | 303.750 | 306.0 | -0.0 | 0.3 | 13.3 | 307.4 | -1.4 |
| 23 | 1110 1001 | 319.375 | 328.4 | -0.4 | -0.3 | 22.4 | 323.3 | 5.1 |
| 24 | 1110 1000 | 335.000 | 340.8 | -0.3 | -0.4 | 12.4 | 339.1 | 1.6 |
| 25 | 1110 0111 | 350.625 | 353.1 | 0.2 | 0.0 | 12.3 | 355.0 | -1.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 516

1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=8)

HAC
TEST
S27

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 367.2 | 0.2 | 0.4 | 14.1 | 370.9 | -3.7 |
| 27 | 1110 0101 | 381.875 | 389.8 | -0.4 | 0.0 | 22.6 | 386.7 | 3.1 |
| 28 | 1110 0100 | 397.500 | 409.0 | -0.4 | -0.3 | 19.2 | 402.6 | 6.5 |
| 29 | 1110 0011 | 413.125 | 418.9 | 0.1 | -0.3 | 9.8 | 418.4 | 0.4 |
| 30 | 1110 0010 | 428.750 | 436.2 | 0.2 | 0.3 | 17.4 | 434.3 | 1.9 |
| 31 | 1110 0001 | 444.375 | 455.3 | 0.2 | 0.3 | 19.1 | 450.2 | 5.2 |
| 32 | 1110 0000 | 460.000 | 461.1 | -0.2 | -0.0 | 5.8 | 466.0 | -4.9 |
| 33 | 1101 1111 | 475.625 | 481.8 | -0.4 | -0.3 | 20.7 | 481.9 | -0.1 |
| 34 | 1101 1110 | 491.250 | 492.2 | 0.2 | -0.0 | 10.4 | 497.7 | -5.6 |
| 35 | 1101 1101 | 506.875 | 517.7 | 0.3 | 0.3 | 25.5 | 513.6 | 4.1 |
| 36 | 1101 1100 | 522.500 | 530.0 | 0.0 | 0.3 | 12.2 | 529.4 | 0.5 |
| 37 | 1101 1011 | 538.125 | 548.7 | -0.4 | -0.3 | 18.7 | 545.3 | 3.4 |
| 38 | 1101 1010 | 553.750 | 560.7 | -0.3 | -0.3 | 12.0 | 561.2 | -0.4 |
| 39 | 1101 1001 | 569.375 | 583.8 | 0.2 | -0.0 | 23.1 | 577.0 | 6.8 |
| 40 | 1101 1000 | 585.000 | 591.7 | 0.2 | 0.2 | 7.9 | 592.9 | -1.1 |
| 41 | 1101 0111 | 600.625 | 608.9 | -0.3 | 0.0 | 17.2 | 608.7 | 0.2 |
| 42 | 1101 0110 | 616.250 | 622.1 | -0.3 | -0.3 | 13.1 | 624.6 | -2.5 |
| 43 | 1101 0101 | 631.875 | 645.2 | -0.0 | -0.2 | 23.1 | 640.4 | 4.7 |
| 44 | 1101 0100 | 647.500 | 660.6 | 0.3 | 0.3 | 15.4 | 656.3 | 4.3 |
| 45 | 1101 0011 | 663.125 | 674.5 | 0.6 | 0.7 | 13.9 | 672.2 | 2.3 |
| 46 | 1101 0010 | 678.750 | 690.9 | -0.3 | -0.0 | 16.4 | 688.0 | 2.8 |
| 47 | 1101 0001 | 694.375 | 710.8 | -0.3 | -0.3 | 20.0 | 703.9 | 7.0 |
| 48 | 1101 0000 | 710.000 | 723.5 | 0.2 | 0.0 | 12.7 | 719.7 | 3.8 |
| 49 | 1100 1111 | 725.625 | 734.9 | 0.3 | 0.3 | 11.4 | 735.6 | -0.6 |
| 50 | 1100 1110 | 741.250 | 745.8 | 0.0 | 0.3 | 10.9 | 751.4 | -5.6 |
| 51 | 1100 1101 | 756.875 | 771.4 | -0.3 | -0.3 | 25.6 | 767.3 | 4.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 517
 1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)



NOV 30 '81

| THRESHOLD
NUMBER | A/D
OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|----------------------------|------------------------|---------------------------|----------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER UPPER | POINT | | DEVIATION | |
| 52 | 1100 1100 | 772.500 | 783.8 | -0.5 | -0.5 | 12.4 | 783.2 | 0.7 |
| 53 | 1100 1011 | 788.125 | 801.5 | 0.2 | -0.1 | 17.7 | 799.0 | 2.5 |
| 54 | 1100 1010 | 803.750 | 814.1 | 0.2 | 0.2 | 12.6 | 814.9 | -0.7 |
| 55 | 1100 1001 | 819.375 | 837.1 | -0.3 | -0.0 | 23.0 | 830.7 | 6.4 |
| 56 | 1100 1000 | 835.000 | 851.9 | 0.3 | 0.2 | 14.7 | 846.6 | 5.3 |
| 57 | 1100 0111 | 850.625 | 861.7 | -0.0 | -0.2 | 9.8 | 862.4 | -0.7 |
| 58 | 1100 0110 | 866.250 | 874.7 | 0.2 | 0.2 | 13.0 | 878.3 | -3.6 |
| 59 | 1100 0101 | 881.875 | 897.6 | 0.3 | 0.3 | 22.9 | 894.2 | 3.4 |
| 60 | 1100 0100 | 897.500 | 915.6 | -0.2 | 0.9 | 18.0 | 910.0 | 5.5 |
| 61 | 1100 0011 | 913.125 | 927.6 | -0.2 | -0.4 | 12.0 | 925.9 | 1.7 |
| 62 | 1100 0010 | 928.750 | 943.2 | 0.3 | -0.0 | 15.6 | 941.7 | 1.5 |
| 63 | 1100 0001 | 944.375 | 962.7 | 0.3 | 0.3 | 19.5 | 957.6 | 5.2 |
| 64 | 1100 0000 | 960.000 | 976.2 | -0.1 | 0.2 | 13.4 | 973.4 | 2.7 |
| 65 | 1011 1111 | 975.625 | 991.0 | -0.2 | -0.2 | 14.8 | 989.3 | 1.7 |
| 66 | 1011 1110 | 991.250 | 1001.0 | -0.3 | -0.3 | 10.0 | 1005.2 | -4.2 |
| 67 | 1011 1101 | 1006.88 | 1026.3 | 0.3 | 0.0 | 25.4 | 1021.0 | 5.3 |
| 68 | 1011 1100 | 1022.50 | 1037.6 | 0.2 | 0.2 | 11.2 | 1036.9 | 0.7 |
| 69 | 1011 1011 | 1038.13 | 1057.7 | -0.3 | 0.1 | 20.1 | 1052.7 | 5.0 |
| 70 | 1011 1010 | 1053.75 | 1068.6 | -0.1 | -0.2 | 10.8 | 1068.6 | -0.0 |
| 71 | 1011 1001 | 1069.38 | 1092.5 | 0.0 | -0.3 | 23.9 | 1084.4 | 8.1 |
| 72 | 1011 1000 | 1085.00 | 1095.9 | 0.2 | 0.2 | 3.3 | 1100.3 | -4.4 |
| 73 | 1011 0111 | 1100.63 | 1117.0 | 0.3 | 0.3 | 21.1 | 1116.2 | 0.9 |
| 74 | 1011 0110 | 1116.25 | 1129.6 | -0.3 | 0.0 | 12.6 | 1132.0 | -2.4 |
| 75 | 1011 0101 | 1131.88 | 1153.1 | -0.3 | -0.3 | 23.5 | 1147.9 | 5.2 |
| 76 | 1011 0100 | 1147.50 | 1165.7 | 0.2 | -0.1 | 12.5 | 1163.7 | 1.9 |
| 77 | 1011 0011 | 1163.13 | 1183.7 | 0.3 | 0.3 | 18.0 | 1179.6 | 4.1 |
| 78 | 1011 0010 | 1178.75 | 1197.6 | -0.0 | 0.3 | 13.9 | 1195.5 | 2.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 518

1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)

HAC
TEST
127

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1218.4 | -0.3 | -0.3 | 20.7 | 1211.3 | 7.1 |
| 80 | 1011 0000 | 1210.00 | 1227.4 | -0.2 | -0.2 | 9.0 | 1227.2 | 0.3 |
| 81 | 1010 1111 | 1225.63 | 1242.8 | 0.3 | -0.3 | 15.4 | 1243.0 | -0.2 |
| 82 | 1010 1110 | 1241.25 | 1252.8 | 0.2 | 0.2 | 10.0 | 1258.9 | -6.1 |
| 83 | 1010 1101 | 1256.88 | 1278.5 | -0.3 | -0.0 | 25.7 | 1274.7 | 3.8 |
| 84 | 1010 1100 | 1272.50 | 1289.5 | -0.2 | -0.3 | 11.0 | 1290.6 | -1.1 |
| 85 | 1010 1011 | 1288.13 | 1309.5 | -0.0 | -0.3 | 20.0 | 1306.5 | 3.1 |
| 86 | 1010 1010 | 1303.75 | 1320.7 | 0.3 | 0.3 | 11.2 | 1322.3 | -1.6 |
| 87 | 1010 1001 | 1319.38 | 1344.0 | 0.3 | 0.3 | 23.3 | 1338.2 | 5.8 |
| 88 | 1010 1000 | 1335.00 | 1352.8 | -0.3 | -0.1 | 8.8 | 1354.0 | -1.2 |
| 89 | 1010 0111 | 1350.63 | 1369.1 | -0.3 | -0.3 | 16.2 | 1369.9 | -0.8 |
| 90 | 1010 0110 | 1366.25 | 1381.1 | 0.3 | -0.1 | 12.0 | 1385.7 | -4.7 |
| 91 | 1010 0101 | 1381.88 | 1404.4 | 0.4 | 0.4 | 23.3 | 1401.6 | 2.8 |
| 92 | 1010 0100 | 1397.50 | 1421.8 | -0.1 | 0.3 | 17.3 | 1417.5 | 4.3 |
| 93 | 1010 0011 | 1413.13 | 1435.5 | -0.3 | -0.3 | 13.7 | 1433.3 | 2.2 |
| 94 | 1010 0010 | 1428.75 | 1449.7 | -0.3 | -0.3 | 14.1 | 1449.2 | 0.5 |
| 95 | 1010 0001 | 1444.38 | 1469.7 | 0.2 | 0.0 | 20.1 | 1465.0 | 4.7 |
| 96 | 1010 0000 | 1460.00 | 1478.0 | 0.1 | 0.2 | 8.3 | 1480.9 | -2.8 |
| 97 | 1001 1111 | 1475.63 | 1495.9 | -0.2 | 0.0 | 17.9 | 1496.7 | -0.8 |
| 98 | 1001 1110 | 1491.25 | 1505.1 | -0.3 | -0.3 | 9.1 | 1512.6 | -7.5 |
| 99 | 1001 1101 | 1506.88 | 1531.4 | -0.0 | -0.3 | 26.3 | 1528.5 | 3.0 |
| 100 | 1001 1100 | 1522.50 | 1542.3 | 0.2 | 0.2 | 10.8 | 1544.3 | -2.1 |
| 101 | 1001 1011 | 1538.13 | 1562.2 | 0.3 | 0.3 | 20.0 | 1560.2 | 2.1 |
| 102 | 1001 1010 | 1553.75 | 1572.8 | -0.2 | -0.0 | 10.5 | 1576.0 | -3.3 |
| 103 | 1001 1001 | 1569.38 | 1597.4 | -0.5 | -0.5 | 24.6 | 1591.9 | 5.5 |
| 104 | 1001 1000 | 1585.00 | 1602.7 | 0.2 | -0.1 | 5.3 | 1607.7 | -5.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 519

1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)



11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1621.8 | 0.3 | 0.3 | 19.1 | 1623.6 | -1.8 |
| 106 | 1001 0110 | 1616.25 | 1633.3 | 0.0 | 0.3 | 11.5 | 1639.5 | -6.2 |
| 107 | 1001 0101 | 1631.88 | 1657.6 | -0.3 | -0.3 | 24.4 | 1655.3 | 2.3 |
| 108 | 1001 0100 | 1647.50 | 1671.5 | -0.8 | -1.1 | 13.9 | 1671.2 | 0.3 |
| 109 | 1001 0011 | 1663.13 | 1688.3 | 0.2 | -0.0 | 16.8 | 1687.0 | 1.3 |
| 110 | 1001 0010 | 1678.75 | 1701.5 | 0.3 | 0.2 | 13.1 | 1702.9 | -1.4 |
| 111 | 1001 0001 | 1694.38 | 1722.9 | -0.3 | 0.0 | 21.4 | 1718.7 | 4.2 |
| 112 | 1001 0000 | 1710.00 | 1738.2 | -0.3 | -0.3 | 15.2 | 1734.6 | 3.6 |
| 113 | 1000 1111 | 1725.63 | 1747.6 | -0.0 | -0.3 | 9.4 | 1750.5 | -2.8 |
| 114 | 1000 1110 | 1741.25 | 1756.6 | 0.2 | 0.2 | 9.0 | 1766.3 | -9.7 |
| 115 | 1000 1101 | 1756.88 | 1782.6 | 0.4 | 0.5 | 25.9 | 1782.2 | 0.4 |
| 116 | 1000 1100 | 1772.50 | 1793.3 | -0.3 | -0.3 | 10.7 | 1798.0 | -4.7 |
| 117 | 1000 1011 | 1788.13 | 1813.9 | -0.2 | -0.2 | 20.6 | 1813.9 | -0.0 |
| 118 | 1000 1010 | 1803.75 | 1824.6 | 0.2 | -0.0 | 10.7 | 1829.7 | -5.1 |
| 119 | 1000 1001 | 1819.38 | 1848.4 | 0.3 | 0.3 | 23.8 | 1845.6 | 2.8 |
| 120 | 1000 1000 | 1835.00 | 1860.2 | -0.0 | 0.2 | 11.7 | 1861.5 | -1.3 |
| 121 | 1000 0111 | 1850.63 | 1873.5 | -0.3 | -0.3 | 13.3 | 1877.3 | -3.9 |
| 122 | 1000 0110 | 1866.25 | 1885.1 | -0.4 | -0.3 | 11.6 | 1893.2 | -8.1 |
| 123 | 1000 0101 | 1881.88 | 1908.6 | 0.3 | 0.3 | 23.5 | 1909.0 | -0.4 |
| 124 | 1000 0100 | 1897.50 | 1926.4 | 0.3 | 0.3 | 17.8 | 1924.9 | 1.5 |
| 125 | 1000 0011 | 1913.13 | 1939.8 | -0.3 | 0.0 | 13.4 | 1940.8 | -1.0 |
| 126 | 1000 0010 | 1928.75 | 1953.3 | -0.3 | -0.3 | 13.5 | 1956.6 | -3.3 |
| 127 | 1000 0001 | 1944.38 | 1974.1 | -0.0 | -0.3 | 20.8 | 1972.5 | 1.6 |
| 128 | 1000 0000 | 1960.00 | 1990.6 | 0.2 | 0.2 | 16.5 | 1988.3 | 2.3 |
| 129 | 0111 1111 | 1975.63 | 2003.9 | 0.3 | 0.3 | 13.3 | 2004.2 | -0.3 |
| 130 | 0111 1110 | 1991.25 | 2014.2 | -0.2 | -0.3 | 10.3 | 2020.0 | -5.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N'3 PAGE 520
 1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)

HAC
TEST
S27

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 131 | 0111 1101 | 2006.88 | 2039.4 -0.3 -0.3 | 25.2 | 2035.9 3.5 |
| 132 | 0111 1100 | 2022.50 | 2052.4 0.3 0.0 | 13.0 | 2051.8 0.7 |
| 133 | 0111 1011 | 2038.13 | 2070.5 0.3 0.4 | 18.1 | 2067.6 2.9 |
| 134 | 0111 1010 | 2053.75 | 2082.1 -0.0 0.3 | 11.6 | 2083.5 -1.4 |
| 135 | 0111 1001 | 2069.38 | 2105.6 -0.4 -0.4 | 23.6 | 2099.3 6.3 |
| 136 | 0111 1000 | 2085.00 | 2109.3 -0.3 -0.3 | 3.7 | 2115.2 -5.9 |
| 137 | 0111 0111 | 2100.63 | 2130.3 0.3 0.4 | 21.0 | 2131.0 -0.7 |
| 138 | 0111 0110 | 2116.25 | 2142.4 0.2 0.2 | 12.1 | 2146.9 -4.5 |
| 139 | 0111 0101 | 2131.88 | 2166.2 -0.4 -0.1 | 23.7 | 2162.8 3.4 |
| 140 | 0111 0100 | 2147.50 | 2182.2 -0.3 -0.3 | 16.0 | 2178.6 3.6 |
| 141 | 0111 0011 | 2163.13 | 2190.9 -0.0 5.3 | 8.7 | 2194.5 -3.6 |
| 142 | 0111 0010 | 2178.75 | 2210.8 0.3 0.3 | 19.8 | 2210.3 0.4 |
| 143 | 0111 0001 | 2194.38 | 2231.4 0.3 0.3 | 20.7 | 2226.2 5.3 |
| 144 | 0111 0000 | 2210.00 | 2240.7 -0.3 -0.3 | 9.3 | 2242.0 -1.3 |
| 145 | 0110 1111 | 2225.63 | 2256.3 -0.4 -0.4 | 15.5 | 2257.9 -1.6 |
| 146 | 0110 1110 | 2241.25 | 2265.9 0.3 0.0 | 9.6 | 2273.8 -7.9 |
| 147 | 0110 1101 | 2256.88 | 2290.9 0.4 0.5 | 25.0 | 2289.6 1.3 |
| 148 | 0110 1100 | 2272.50 | 2303.4 0.0 0.3 | 12.5 | 2305.5 -2.1 |
| 149 | 0110 1011 | 2288.13 | 2322.9 -0.4 -0.4 | 19.5 | 2321.3 1.5 |
| 150 | 0110 1010 | 2303.75 | 2334.6 -0.3 -0.3 | 11.7 | 2337.2 -2.6 |
| 151 | 0110 1001 | 2319.38 | 2357.2 0.3 0.3 | 22.6 | 2353.0 4.2 |
| 152 | 0110 1000 | 2335.00 | 2365.5 0.3 0.3 | 8.3 | 2368.9 -3.4 |
| 153 | 0110 0111 | 2350.63 | 2382.4 -0.3 -0.0 | 16.9 | 2384.8 -2.4 |
| 154 | 0110 0110 | 2366.25 | 2394.5 -0.4 -0.3 | 12.1 | 2400.6 -6.1 |
| 155 | 0110 0101 | 2381.88 | 2417.9 -0.1 -0.3 | 23.3 | 2416.5 1.4 |
| 156 | 0110 0100 | 2397.50 | 2437.1 0.3 0.3 | 19.3 | 2432.3 4.8 |
| 157 | 0110 0011 | 2413.13 | 2448.0 0.3 0.4 | 10.9 | 2448.2 -0.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 521

1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-----------------------------------|-------|------------------------------------|------------------------|-------|
| | | | NOMINAL | LEVELS RATIO= 1 11
LOWER UPPER | POINT | | DEVIATION | |
| 158 | 0110 0010 | 2428.75 | 2462.9 | -0.3 | -0.3 | 14.9 | 2464.0 | -1.2 |
| 159 | 0110 0001 | 2444.38 | 2483.1 | -0.4 | -0.5 | 20.2 | 2479.9 | 3.2 |
| 160 | 0110 0000 | 2460.00 | 2489.3 | 0.2 | -0.1 | 6.2 | 2495.8 | -6.5 |
| 161 | 0101 1111 | 2475.63 | 2509.3 | 0.4 | 0.3 | 20.0 | 2511.6 | -2.3 |
| 162 | 0101 1110 | 2491.25 | 2518.3 | -0.0 | 0.3 | 9.0 | 2527.5 | -9.1 |
| 163 | 0101 1101 | 2506.88 | 2544.6 | -0.4 | -0.4 | 26.2 | 2543.3 | 1.2 |
| 164 | 0101 1100 | 2522.50 | 2558.2 | -0.4 | -0.3 | 13.6 | 2559.2 | -1.0 |
| 165 | 0101 1011 | 2538.13 | 2576.0 | 0.2 | 0.2 | 17.8 | 2575.0 | 0.9 |
| 166 | 0101 1010 | 2553.75 | 2586.4 | 0.3 | 0.3 | 10.4 | 2590.9 | -4.5 |
| 167 | 0101 1001 | 2569.38 | 2611.7 | -0.3 | -0.1 | 25.3 | 2606.8 | 5.0 |
| 168 | 0101 1000 | 2585.00 | 2616.6 | -0.3 | -0.3 | 4.9 | 2622.6 | -6.0 |
| 169 | 0101 0111 | 2600.63 | 2635.9 | -0.1 | -0.3 | 19.2 | 2638.5 | -2.6 |
| 170 | 0101 0110 | 2616.25 | 2646.8 | 0.3 | 0.3 | 10.9 | 2654.3 | -7.6 |
| 171 | 0101 0101 | 2631.88 | 2670.8 | 0.3 | 0.3 | 24.0 | 2670.2 | 0.6 |
| 172 | 0101 0100 | 2647.50 | 2687.0 | -0.4 | -0.3 | 16.2 | 2686.1 | 0.9 |
| 173 | 0101 0011 | 2663.13 | 2696.1 | -0.4 | 5.7 | 9.1 | 2701.9 | -5.8 |
| 174 | 0101 0010 | 2678.75 | 2715.2 | 0.3 | 0.2 | 19.0 | 2717.8 | -2.6 |
| 175 | 0101 0001 | 2694.38 | 2736.2 | 0.4 | 0.4 | 21.1 | 2733.6 | 2.6 |
| 176 | 0101 0000 | 2710.00 | 2749.6 | 0.0 | 0.3 | 13.3 | 2749.5 | 0.1 |
| 177 | 0100 1111 | 2725.63 | 2761.7 | -0.4 | -0.4 | 12.1 | 2765.3 | -3.7 |
| 178 | 0100 1110 | 2741.25 | 2770.6 | -0.4 | -0.3 | 8.9 | 2781.2 | -10.6 |
| 179 | 0100 1101 | 2756.88 | 2796.0 | 0.4 | 0.4 | 25.4 | 2797.1 | -1.1 |
| 180 | 0100 1100 | 2772.50 | 2807.6 | 0.3 | 0.4 | 11.6 | 2812.9 | -5.3 |
| 181 | 0100 1011 | 2788.13 | 2828.1 | -0.4 | 0.0 | 20.6 | 2828.8 | -0.6 |
| 182 | 0100 1010 | 2803.75 | 2839.0 | -0.3 | -0.4 | 10.8 | 2844.6 | -5.7 |
| 183 | 0100 1001 | 2819.38 | 2863.5 | -0.0 | -0.1 | 24.5 | 2860.5 | 3.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 522
 1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)

HAC
11ST
527

NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2877.7 | 0.3 | 0.4 | 14.3 | 2876.3 | 1.4 |
| 185 | 0100 0111 | 2850.63 | 2887.4 | 0.1 | 0.1 | 9.6 | 2892.2 | -4.8 |
| 186 | 0100 0110 | 2866.25 | 2899.0 | -0.3 | -0.4 | 11.6 | 2908.1 | -9.0 |
| 187 | 0100 0101 | 2881.88 | 2923.1 | -0.4 | -0.4 | 24.1 | 2923.9 | -0.8 |
| 188 | 0100 0100 | 2897.50 | 2942.5 | 0.2 | -0.1 | 19.4 | 2939.8 | 2.8 |
| 189 | 0100 0011 | 2913.12 | 2947.8 | 0.3 | 6.5 | 5.3 | 2955.6 | -7.8 |
| 190 | 0100 0010 | 2928.75 | 2967.2 | -0.1 | 0.3 | 19.4 | 2971.5 | -4.3 |
| 191 | 0100 0001 | 2944.38 | 2988.9 | -0.4 | -0.3 | 21.7 | 2987.3 | 1.5 |
| 192 | 0100 0000 | 2960.00 | 2997.8 | -0.3 | -0.3 | 8.9 | 3003.2 | -5.4 |
| 193 | 0011 1111 | 2975.63 | 3016.6 | -0.0 | -0.1 | 18.8 | 3019.1 | -2.5 |
| 194 | 0011 1110 | 2991.25 | 3026.6 | 0.3 | 0.3 | 10.0 | 3034.9 | -8.3 |
| 195 | 0011 1101 | 3006.88 | 3051.9 | -0.4 | 0.0 | 25.3 | 3050.8 | 1.1 |
| 196 | 0011 1100 | 3022.50 | 3064.0 | -0.3 | -0.4 | 12.1 | 3066.6 | -2.6 |
| 197 | 0011 1011 | 3038.13 | 3084.0 | -0.1 | -0.3 | 20.0 | 3082.5 | 1.5 |
| 198 | 0011 1010 | 3053.75 | 3093.7 | 0.3 | 0.4 | 9.7 | 3098.3 | -4.7 |
| 199 | 0011 1001 | 3069.38 | 3119.3 | -0.1 | 0.3 | 25.6 | 3114.2 | 5.1 |
| 200 | 0011 1000 | 3085.00 | 3120.7 | -0.3 | -0.3 | 1.4 | 3130.1 | -9.3 |
| 201 | 0011 0111 | 3100.63 | 3143.9 | -0.3 | -0.3 | 23.2 | 3145.9 | -2.0 |
| 202 | 0011 0110 | 3116.25 | 3154.7 | 0.3 | -0.1 | 10.7 | 3161.8 | -7.1 |
| 203 | 0011 0101 | 3131.88 | 3179.2 | 0.3 | 0.4 | 24.6 | 3177.6 | 1.6 |
| 204 | 0011 0100 | 3147.50 | 3193.8 | -0.1 | 0.3 | 14.6 | 3193.5 | 0.3 |
| 205 | 0011 0011 | 3163.13 | 3204.1 | -0.4 | -0.4 | 10.3 | 3209.3 | -5.2 |
| 206 | 0011 0010 | 3178.75 | 3224.2 | -0.1 | -0.3 | 20.0 | 3225.2 | -1.0 |
| 207 | 0011 0001 | 3194.38 | 3245.2 | 0.4 | 0.3 | 21.0 | 3241.1 | 4.1 |
| 208 | 0011 0000 | 3210.00 | 3256.8 | 0.3 | 0.2 | 11.6 | 3256.9 | -0.2 |
| 209 | 0010 1111 | 3225.63 | 3270.7 | -0.3 | 0.0 | 13.9 | 3272.8 | -2.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 523

1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-----------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 :1
LOWER UPPER | POINT | | DEVIATION | |
| 210 | 0010 1110 | 3241.25 | 3279.5 | -0.5 | -0.4 | 8.8 | 3288.6 | -9.1 |
| 211 | 0010 1101 | 3256.88 | 3305.6 | -0.2 | -0.4 | 26.1 | 3304.5 | 1.1 |
| 212 | 0010 1100 | 3272.50 | 3315.7 | 0.3 | 0.4 | 10.2 | 3320.3 | -4.6 |
| 213 | 0010 1011 | 3288.13 | 3337.4 | -0.0 | 0.5 | 21.7 | 3336.2 | 1.2 |
| 214 | 0010 1010 | 3303.75 | 3348.4 | -0.3 | -0.3 | 10.9 | 3352.1 | -3.7 |
| 215 | 0010 1001 | 3319.38 | 3373.7 | -0.4 | -0.3 | 25.3 | 3367.9 | 5.8 |
| 216 | 0010 1000 | 3335.00 | 3383.8 | 0.4 | -0.0 | 10.1 | 3383.8 | 0.1 |
| 217 | 0010 0111 | 3350.63 | 3397.7 | 0.2 | 0.3 | 13.9 | 3399.6 | -1.9 |
| 218 | 0010 0110 | 3366.25 | 3408.7 | -0.1 | 0.3 | 11.0 | 3415.5 | -6.8 |
| 219 | 0010 0101 | 3381.88 | 3433.7 | -0.5 | -0.4 | 25.0 | 3431.4 | 2.4 |
| 220 | 0010 0100 | 3397.50 | 3451.9 | -0.0 | -0.3 | 18.2 | 3447.2 | 4.7 |
| 221 | 0010 0011 | 3413.13 | 3458.0 | 0.4 | 0.4 | 6.1 | 3463.1 | -5.1 |
| 222 | 0010 0010 | 3428.75 | 3477.8 | 0.3 | 0.4 | 19.8 | 3478.9 | -1.1 |
| 223 | 0010 0001 | 3444.38 | 3500.3 | 0.4 | 1.1 | 22.5 | 3494.8 | 5.5 |
| 224 | 0010 0000 | 3460.00 | 3506.8 | -0.4 | -0.3 | 6.5 | 3510.6 | -3.9 |
| 225 | 0001 1111 | 3475.63 | 3526.8 | -0.1 | -0.4 | 20.1 | 3526.5 | 0.4 |
| 226 | 0001 1110 | 3491.25 | 3535.5 | 0.3 | 0.3 | 8.6 | 3542.4 | -6.9 |
| 227 | 0001 1101 | 3506.88 | 3561.2 | -0.1 | 0.5 | 25.7 | 3558.2 | 3.0 |
| 228 | 0001 1100 | 3522.50 | 3574.3 | -0.3 | -0.3 | 13.1 | 3574.1 | 0.2 |
| 229 | 0001 1011 | 3538.13 | 3594.4 | -0.5 | -0.4 | 20.1 | 3589.9 | 4.4 |
| 230 | 0001 1010 | 3553.75 | 3603.2 | 0.3 | -0.0 | 8.8 | 3605.8 | -2.6 |
| 231 | 0001 1001 | 3569.38 | 3629.6 | 0.1 | 0.8 | 26.4 | 3621.6 | 8.0 |
| 232 | 0001 1000 | 3585.00 | 3633.0 | -0.0 | 0.4 | 3.4 | 3637.5 | -4.5 |
| 233 | 0001 0111 | 3600.63 | 3654.9 | -0.5 | -0.4 | 21.9 | 3653.4 | 1.5 |
| 234 | 0001 0110 | 3616.25 | 3665.1 | -0.0 | -0.3 | 10.3 | 3669.2 | -4.1 |
| 235 | 0001 0101 | 3631.88 | 3690.1 | 0.1 | 0.3 | 24.9 | 3685.1 | 5.0 |
| 236 | 0001 0100 | 3647.50 | 3704.6 | 0.2 | 0.4 | 14.5 | 3700.9 | 3.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 524
 1981/11/30 14:32:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=8)



10 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3715.6 | -0.4 | -0.1 | 11.0 | 3716.8 | -1.2 |
| 238 | 0001 0010 | 3678.75 | 3734.8 | -0.4 | -0.3 | 19.2 | 3732.6 | 2.1 |
| 239 | 0001 0001 | 3694.38 | 3758.6 | -0.1 | -0.3 | 23.8 | 3748.5 | 10.1 |
| 240 | 0001 0000 | 3710.00 | 3772.2 | 0.3 | 0.4 | 13.6 | 3764.7 | 7.9 |
| 241 | 0000 1111 | 3725.63 | 3782.2 | -0.1 | 0.4 | 10.0 | 3780.2 | 2.0 |
| 242 | 0000 1110 | 3741.25 | 3790.7 | -0.4 | -0.4 | 8.5 | 3796.1 | -5.4 |
| 243 | 0000 1101 | 3756.88 | 3817.5 | -0.6 | -0.3 | 26.8 | 3811.9 | 5.6 |
| 244 | 0000 1100 | 3772.50 | 3827.3 | 0.3 | -0.1 | 9.8 | 3827.8 | -0.5 |
| 245 | 0000 1011 | 3788.13 | 3850.0 | 0.2 | 0.4 | 22.7 | 3843.6 | 6.4 |
| 246 | 0000 1010 | 3803.75 | 3860.0 | -0.2 | 0.4 | 9.9 | 3859.5 | 0.5 |
| 247 | 0000 1001 | 3819.38 | 3886.5 | -0.6 | -0.3 | 26.5 | 3875.4 | 11.1 |
| 248 | 0000 1000 | 3835.00 | 3895.6 | -0.1 | -0.4 | 9.1 | 3891.2 | 4.3 |
| 249 | 0000 0111 | 3850.63 | 3910.7 | 0.3 | 0.4 | 15.1 | 3907.1 | 3.6 |
| 250 | 0000 0110 | 3866.25 | 3921.0 | 0.3 | 0.3 | 10.3 | 3922.9 | -1.9 |
| 251 | 0000 0101 | 3881.88 | 3946.9 | -0.5 | 0.0 | 25.8 | 3938.8 | 8.1 |
| 252 | 0000 0100 | 3897.50 | 3965.4 | -0.5 | -0.4 | 18.5 | 3954.6 | 10.8 |
| 253 | 0000 0011 | 3913.13 | 3978.9 | -0.2 | -0.3 | 13.5 | 3970.5 | 8.4 |
| 254 | 0000 0010 | 3928.75 | 3991.0 | 0.2 | 0.4 | 12.1 | 3986.4 | 4.7 |
| 255 | 0000 0001 | 3944.38 | 4014.8 | -0.2 | 0.5 | 23.8 | 4002.2 | 12.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 525
 1981/11/30 14:36:55 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.868X - 40.8MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.556%
 OFFSET IS:-40.8MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998170$
 ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR = 5.002MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.8MV | 243 | 15.941MV | 0.9MV | 241 | 5.846MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.1MV | 237 | -0.064MV | -3.9MV | 113 | .612MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 1.5MV | 214 | 0.002MV | -1.0MV | 216 | .572MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 526

1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)



NOV 30 1981

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -31.1 | -1.3 | -0.4 | | -24.9 | -6.2 |
| 2 | 1111 1110 | -8.750 | -17.0 | -0.5 | -0.6 | 14.0 | -9.1 | -8.0 |
| 3 | 1111 1101 | 6.875 | 7.4 | 0.5 | 0.0 | 24.4 | 6.8 | 0.6 |
| 4 | 1111 1100 | 22.500 | 19.9 | 0.5 | 0.7 | 12.5 | 22.7 | -2.7 |
| 5 | 1111 1011 | 38.125 | 36.0 | -0.1 | 0.6 | 16.0 | 38.6 | -2.6 |
| 6 | 1111 1010 | 53.750 | 54.8 | -0.6 | -0.5 | 18.8 | 54.4 | 0.4 |
| 7 | 1111 1001 | 69.375 | 75.4 | -0.6 | -0.6 | 20.6 | 70.3 | 5.1 |
| 8 | 1111 1000 | 85.000 | 80.2 | 0.5 | 0.4 | 4.8 | 86.2 | -6.0 |
| 9 | 1111 0111 | 100.625 | 96.4 | 0.5 | 0.6 | 16.2 | 102.0 | -5.6 |
| 10 | 1111 0110 | 116.250 | 113.4 | -0.5 | 0.0 | 17.0 | 117.9 | -4.5 |
| 11 | 1111 0101 | 131.875 | 136.0 | -0.7 | -0.6 | 22.6 | 133.8 | 2.2 |
| 12 | 1111 0100 | 147.500 | 152.6 | -0.1 | -0.5 | 16.6 | 149.6 | 3.0 |
| 13 | 1111 0011 | 163.125 | 163.8 | 0.5 | 0.6 | 11.2 | 165.5 | -1.7 |
| 14 | 1111 0010 | 178.750 | 184.7 | 0.5 | 0.6 | 20.9 | 181.4 | 3.3 |
| 15 | 1111 0001 | 194.375 | 203.0 | -0.6 | -0.5 | 18.3 | 197.2 | 5.8 |
| 16 | 1111 0000 | 210.000 | 212.8 | -0.6 | -0.6 | 9.7 | 213.1 | -0.3 |
| 17 | 1110 1111 | 225.625 | 223.4 | 0.5 | 0.0 | 10.6 | 229.0 | -5.6 |
| 18 | 1110 1110 | 241.250 | 237.7 | 0.5 | 0.5 | 14.3 | 244.8 | -7.1 |
| 19 | 1110 1101 | 256.875 | 262.4 | -0.1 | 0.6 | 24.7 | 260.7 | 1.7 |
| 20 | 1110 1100 | 272.500 | 279.2 | -0.6 | -0.5 | 16.8 | 276.6 | 2.6 |
| 21 | 1110 1011 | 288.125 | 291.3 | -0.6 | -0.5 | 12.1 | 292.4 | -1.1 |
| 22 | 1110 1010 | 303.750 | 309.7 | 0.5 | 0.6 | 18.4 | 308.3 | 1.4 |
| 23 | 1110 1001 | 319.375 | 329.8 | 0.6 | 0.6 | 20.0 | 324.2 | 5.6 |
| 24 | 1110 1000 | 335.000 | 342.4 | -0.5 | -0.1 | 12.6 | 340.0 | 2.4 |
| 25 | 1110 0111 | 350.625 | 351.7 | -0.6 | -0.5 | 9.3 | 355.9 | -4.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 527
 1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)



11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 368.5 | -0.1 | -0.5 | 16.7 | 371.8 | -3.3 |
| 27 | 1110 0101 | 381.875 | 390.1 | 0.6 | 0.7 | 21.6 | 387.7 | 7.5 |
| 28 | 1110 0100 | 397.500 | 410.1 | 0.6 | 0.6 | 19.9 | 403.5 | 6.5 |
| 29 | 1110 0011 | 413.125 | 419.0 | -0.6 | -0.5 | 8.9 | 419.4 | -0.4 |
| 30 | 1110 0010 | 428.750 | 440.4 | -0.7 | -0.6 | 21.4 | 435.3 | 5.1 |
| 31 | 1110 0001 | 444.375 | 457.2 | 0.6 | 0.1 | 16.7 | 451.1 | 6.0 |
| 32 | 1110 0000 | 460.000 | 463.7 | 0.5 | 0.5 | 6.5 | 467.0 | -3.3 |
| 33 | 1101 1111 | 475.625 | 479.2 | -0.0 | 0.6 | 15.5 | 482.9 | -3.6 |
| 34 | 1101 1110 | 491.250 | 493.4 | -0.6 | -0.5 | 14.1 | 498.7 | -5.4 |
| 35 | 1101 1101 | 506.875 | 518.9 | -0.7 | -0.6 | 25.5 | 514.6 | 4.3 |
| 36 | 1101 1100 | 522.500 | 530.8 | 0.5 | 0.6 | 11.9 | 530.5 | 0.4 |
| 37 | 1101 1011 | 538.125 | 546.4 | 0.5 | 0.6 | 15.6 | 546.3 | 0.1 |
| 38 | 1101 1010 | 553.750 | 564.9 | -0.6 | 0.0 | 18.5 | 562.2 | 2.7 |
| 39 | 1101 1001 | 569.375 | 586.1 | -0.6 | -0.6 | 21.2 | 578.1 | 8.1 |
| 40 | 1101 1000 | 585.000 | 593.0 | 0.0 | -0.5 | 6.9 | 593.9 | -0.9 |
| 41 | 1101 0111 | 600.625 | 606.7 | 0.5 | 0.6 | 13.6 | 609.8 | -3.1 |
| 42 | 1101 0110 | 616.250 | 622.7 | 0.4 | 0.5 | 16.0 | 625.7 | -3.0 |
| 43 | 1101 0101 | 631.875 | 646.3 | -0.7 | -0.6 | 23.6 | 641.5 | 4.8 |
| 44 | 1101 0100 | 647.500 | 662.2 | -0.7 | -0.7 | 15.9 | 657.4 | 4.8 |
| 45 | 1101 0011 | 663.125 | 673.7 | 0.5 | 0.0 | 11.5 | 673.3 | 0.4 |
| 46 | 1101 0010 | 678.750 | 694.3 | 0.5 | 0.6 | 20.6 | 689.1 | 5.2 |
| 47 | 1101 0001 | 694.375 | 712.7 | -0.0 | 0.5 | 18.4 | 705.0 | 7.7 |
| 48 | 1101 0000 | 710.000 | 726.7 | -0.7 | -0.6 | 14.0 | 720.9 | 5.8 |
| 49 | 1100 1111 | 725.625 | 733.7 | -0.6 | -0.6 | 6.9 | 736.8 | -3.1 |
| 50 | 1100 1110 | 741.250 | 746.8 | 0.4 | 0.5 | 13.1 | 752.6 | -5.8 |
| 51 | 1100 1101 | 756.875 | 771.8 | 0.5 | 0.6 | 25.0 | 768.5 | 3.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 528

1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 787.4 | -0.7 | -0.0 | 15.6 | 784.4 | 3.0 |
| 53 | 1100 1011 | 788.125 | 800.4 | -0.6 | -0.6 | 13.0 | 800.2 | 0.1 |
| 54 | 1100 1010 | 803.750 | 819.0 | -0.0 | -0.6 | 18.6 | 816.1 | 2.9 |
| 55 | 1100 1001 | 819.375 | 838.8 | 0.5 | 0.5 | 19.8 | 832.0 | 6.9 |
| 56 | 1100 1000 | 835.000 | 853.5 | 0.5 | 0.5 | 14.6 | 847.8 | 5.6 |
| 57 | 1100 0111 | 850.625 | 860.2 | -0.6 | -0.6 | 6.8 | 863.7 | -3.5 |
| 58 | 1100 0110 | 866.250 | 876.4 | -0.6 | -0.6 | 16.2 | 879.6 | -3.2 |
| 59 | 1100 0101 | 881.875 | 898.5 | 0.6 | 0.0 | 22.1 | 895.4 | 3.0 |
| 60 | 1100 0100 | 897.500 | 918.5 | 0.6 | 0.6 | 20.0 | 911.3 | 7.1 |
| 61 | 1100 0011 | 913.125 | 926.3 | 0.0 | 0.6 | 7.8 | 927.2 | -0.9 |
| 62 | 1100 0010 | 928.750 | 947.7 | -0.6 | -0.5 | 21.4 | 943.0 | 4.7 |
| 63 | 1100 0001 | 944.375 | 965.8 | -0.7 | -0.7 | 18.1 | 958.9 | 6.9 |
| 64 | 1100 0000 | 960.000 | 975.7 | 0.6 | 0.6 | 9.9 | 974.8 | 0.9 |
| 65 | 1011 1111 | 975.625 | 987.9 | 0.6 | 0.6 | 12.2 | 990.6 | -2.7 |
| 66 | 1011 1110 | 991.250 | 1002.2 | -0.5 | -0.0 | 14.3 | 1006.5 | -4.3 |
| 67 | 1011 1101 | 1006.88 | 1027.7 | -0.6 | -0.6 | 25.5 | 1022.4 | 5.3 |
| 68 | 1011 1100 | 1022.50 | 1039.2 | 0.0 | -0.6 | 11.5 | 1038.2 | 0.9 |
| 69 | 1011 1011 | 1038.13 | 1054.8 | 0.5 | 0.6 | 15.6 | 1054.1 | 0.7 |
| 70 | 1011 1010 | 1053.75 | 1073.2 | 0.5 | 0.6 | 18.4 | 1070.0 | 3.2 |
| 71 | 1011 1001 | 1069.38 | 1094.8 | -0.6 | -0.6 | 21.6 | 1085.9 | 8.9 |
| 72 | 1011 1000 | 1085.00 | 1097.5 | -0.5 | -0.6 | 2.7 | 1101.7 | -4.2 |
| 73 | 1011 0111 | 1100.63 | 1114.5 | 0.5 | 0.0 | 17.0 | 1117.6 | -3.1 |
| 74 | 1011 0110 | 1116.25 | 1130.6 | 0.6 | 0.5 | 16.0 | 1133.5 | -2.9 |
| 75 | 1011 0101 | 1131.88 | 1153.7 | 0.0 | 0.7 | 23.1 | 1149.3 | 4.4 |
| 76 | 1011 0100 | 1147.50 | 1168.9 | -0.6 | -0.5 | 15.2 | 1165.2 | 3.7 |
| 77 | 1011 0011 | 1163.13 | 1181.7 | -0.5 | -0.5 | 12.8 | 1181.1 | 0.7 |
| 78 | 1011 0010 | 1178.75 | 1203.0 | 0.5 | 0.6 | 21.3 | 1196.9 | 6.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 529
 1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1220.8 | 0.6 | 0.7 | 17.8 | 1212.8 | 8.0 |
| 80 | 1011 0000 | 1210.00 | 1233.3 | -0.5 | -0.1 | 12.5 | 1228.7 | 4.7 |
| 81 | 1010 1111 | 1225.63 | 1240.6 | -0.6 | -0.6 | 7.3 | 1244.5 | -3.9 |
| 82 | 1010 1110 | 1241.25 | 1254.5 | -0.0 | -0.5 | 13.8 | 1260.4 | -5.9 |
| 83 | 1010 1101 | 1256.88 | 1279.1 | 0.7 | 0.6 | 24.7 | 1276.3 | 2.9 |
| 84 | 1010 1100 | 1272.50 | 1294.7 | 0.6 | 0.6 | 15.5 | 1292.1 | 2.5 |
| 85 | 1010 1011 | 1288.13 | 1307.3 | -0.9 | -0.9 | 12.6 | 1308.0 | -0.7 |
| 86 | 1010 1010 | 1303.75 | 1326.3 | -0.6 | -0.6 | 19.0 | 1323.9 | 2.4 |
| 87 | 1010 1001 | 1319.38 | 1346.0 | 0.7 | -0.0 | 19.7 | 1339.7 | 6.2 |
| 88 | 1010 1000 | 1335.00 | 1357.4 | 0.5 | 0.5 | 11.4 | 1355.6 | 1.8 |
| 89 | 1010 0111 | 1350.63 | 1366.2 | 0.1 | 0.6 | 8.8 | 1371.5 | -5.3 |
| 90 | 1010 0110 | 1366.25 | 1383.1 | -0.6 | -0.6 | 16.9 | 1387.3 | -4.2 |
| 91 | 1010 0101 | 1381.88 | 1406.1 | -0.7 | -0.6 | 23.0 | 1403.2 | 2.9 |
| 92 | 1010 0100 | 1397.50 | 1424.0 | 0.6 | 0.6 | 17.9 | 1419.1 | 5.0 |
| 93 | 1010 0011 | 1413.13 | 1432.9 | 0.5 | 0.5 | 8.9 | 1435.0 | -2.0 |
| 94 | 1010 0010 | 1428.75 | 1456.2 | -0.7 | 0.0 | 23.3 | 1450.8 | 3.4 |
| 95 | 1010 0001 | 1444.38 | 1472.4 | -0.2 | -0.2 | 16.1 | 1466.7 | 5.7 |
| 96 | 1010 0000 | 1460.00 | 1483.7 | 0.0 | -0.6 | 11.3 | 1482.6 | 1.1 |
| 97 | 1001 1111 | 1475.63 | 1493.2 | 0.6 | 0.6 | 9.5 | 1498.4 | -5.2 |
| 98 | 1001 1110 | 1491.25 | 1506.3 | 0.5 | 0.6 | 13.0 | 1514.3 | -8.0 |
| 99 | 1001 1101 | 1506.88 | 1532.9 | -0.6 | -0.6 | 26.7 | 1530.2 | 2.8 |
| 100 | 1001 1100 | 1522.50 | 1544.4 | -0.6 | -0.6 | 11.4 | 1546.0 | -1.7 |
| 101 | 1001 1011 | 1538.13 | 1559.8 | 0.6 | -0.0 | 15.4 | 1561.9 | -2.1 |
| 102 | 1001 1010 | 1553.75 | 1577.7 | 0.5 | 0.6 | 17.9 | 1577.8 | -0.1 |
| 103 | 1001 1001 | 1569.38 | 1599.0 | 0.0 | 0.7 | 21.3 | 1593.6 | 5.3 |
| 104 | 1001 1000 | 1585.00 | 1604.9 | -0.7 | -0.6 | 5.9 | 1609.5 | -4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 530
 1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE ^{EV 30 81} | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|--|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1620.0 | -0.6 | -0.6 | 15.1 | 1625.4 | -5.4 |
| 106 | 1001 0110 | 1616.25 | 1635.0 | 0.5 | 0.5 | 14.9 | 1641.2 | -6.3 |
| 107 | 1001 0101 | 1631.88 | 1658.6 | 0.6 | 0.7 | 23.6 | 1657.1 | 1.5 |
| 108 | 1001 0100 | 1647.50 | 1673.6 | -0.5 | 0.0 | 15.1 | 1673.0 | 0.7 |
| 109 | 1001 0011 | 1663.13 | 1686.6 | -0.7 | -0.6 | 12.9 | 1688.8 | -7.2 |
| 110 | 1001 0010 | 1678.75 | 1707.8 | 0.0 | -0.7 | 21.2 | 1704.7 | 3.1 |
| 111 | 1001 0001 | 1694.38 | 1724.6 | 0.6 | 0.7 | 16.8 | 1720.6 | 4.1 |
| 112 | 1001 0000 | 1710.00 | 1742.1 | -0.1 | -0.0 | 17.5 | 1736.4 | 5.7 |
| 113 | 1000 1111 | 1725.63 | 1749.2 | -3.9 | -0.5 | 7.1 | 1752.3 | -3.1 |
| 114 | 1000 1110 | 1741.25 | 1758.8 | -0.8 | -0.8 | 9.6 | 1768.2 | -9.3 |
| 115 | 1000 1101 | 1756.88 | 1784.2 | 0.6 | 0.0 | 25.3 | 1784.1 | 0.1 |
| 116 | 1000 1100 | 1772.50 | 1798.2 | 0.8 | 0.7 | 14.1 | 1799.9 | -1.7 |
| 117 | 1000 1011 | 1788.13 | 1811.4 | 0.0 | 0.6 | 13.1 | 1815.8 | -4.4 |
| 118 | 1000 1010 | 1803.75 | 1830.5 | -0.7 | -0.7 | 19.1 | 1831.7 | -1.2 |
| 119 | 1000 1001 | 1819.38 | 1851.2 | -0.6 | -0.6 | 20.7 | 1847.5 | 3.7 |
| 120 | 1000 1000 | 1835.00 | 1865.1 | 0.6 | 0.6 | 13.9 | 1863.4 | 1.7 |
| 121 | 1000 0111 | 1850.63 | 1871.3 | 0.5 | 0.5 | 6.2 | 1879.3 | -7.9 |
| 122 | 1000 0110 | 1866.25 | 1887.1 | -0.4 | 0.0 | 15.8 | 1895.1 | -8.0 |
| 123 | 1000 0101 | 1881.88 | 1910.8 | -0.7 | -0.6 | 23.7 | 1911.0 | -0.2 |
| 124 | 1000 0100 | 1897.50 | 1929.3 | 0.0 | -0.6 | 18.4 | 1926.9 | 2.4 |
| 125 | 1000 0011 | 1913.13 | 1937.4 | 0.5 | 0.6 | 8.2 | 1942.7 | -5.3 |
| 126 | 1000 0010 | 1928.75 | 1959.7 | 0.6 | 0.6 | 22.2 | 1958.6 | 1.1 |
| 127 | 1000 0001 | 1944.38 | 1976.5 | -0.7 | -0.7 | 16.8 | 1974.5 | 2.0 |
| 128 | 1000 0000 | 1960.00 | 1993.3 | -0.5 | -0.5 | 16.8 | 1990.3 | 2.9 |
| 129 | 0111 1111 | 1975.63 | 2001.2 | -0.1 | -0.0 | 7.9 | 2006.2 | -5.0 |
| 130 | 0111 1110 | 1991.25 | 2015.6 | 0.6 | 0.6 | 14.4 | 2022.1 | -6.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 531

1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR==P)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2040.5 | -0.0 | 0.6 | 24.9 | 2037.9 | 2.6 |
| 132 | 0111 1100 | 2022.50 | 2055.1 | -0.6 | -0.6 | 14.6 | 2053.8 | 1.3 |
| 133 | 0111 1011 | 2038.13 | 2067.9 | -0.6 | -0.5 | 12.8 | 2069.7 | -1.8 |
| 134 | 0111 1010 | 2053.75 | 2088.3 | 0.6 | 0.6 | 20.4 | 2085.5 | 2.0 |
| 135 | 0111 1001 | 2069.38 | 2107.8 | 0.6 | 0.6 | 19.4 | 2101.4 | 6.3 |
| 136 | 0111 1000 | 2085.00 | 2111.3 | -0.5 | 0.0 | 3.5 | 2117.3 | -6.0 |
| 137 | 0111 0111 | 2100.63 | 2127.5 | -0.6 | -0.5 | 16.2 | 2133.2 | -5.7 |
| 138 | 0111 0110 | 2116.25 | 2144.5 | 0.0 | -0.5 | 17.4 | 2149.0 | -4.1 |
| 139 | 0111 0101 | 2131.88 | 2167.3 | 0.5 | 0.5 | 22.3 | 2164.9 | 2.4 |
| 140 | 0111 0100 | 2147.50 | 2184.1 | 0.7 | 0.7 | 16.8 | 2180.9 | 3.3 |
| 141 | 0111 0011 | 2163.13 | 2194.4 | -0.7 | -0.5 | 10.3 | 2196.6 | -7.2 |
| 142 | 0111 0010 | 2178.75 | 2218.9 | -0.8 | -0.8 | 24.5 | 2212.5 | 6.4 |
| 143 | 0111 0001 | 2194.38 | 2234.5 | 0.7 | -0.2 | 15.6 | 2228.4 | 6.1 |
| 144 | 0111 0000 | 2210.00 | 2244.0 | 0.5 | 0.5 | 9.5 | 2244.2 | -0.2 |
| 145 | 0110 1111 | 2225.63 | 2252.5 | -0.0 | 0.6 | 8.5 | 2260.1 | -7.6 |
| 146 | 0110 1110 | 2241.25 | 2268.5 | -0.6 | -0.6 | 16.0 | 2276.0 | -7.5 |
| 147 | 0110 1101 | 2256.88 | 2293.3 | -0.7 | -0.6 | 24.7 | 2291.8 | 1.4 |
| 148 | 0110 1100 | 2272.50 | 2310.2 | 0.7 | 0.6 | 17.0 | 2307.1 | 2.5 |
| 149 | 0110 1011 | 2288.13 | 2319.2 | 0.6 | 0.6 | 9.0 | 2323.6 | -4.3 |
| 150 | 0110 1010 | 2303.75 | 2341.4 | -0.6 | 0.0 | 22.2 | 2339.4 | 2.0 |
| 151 | 0110 1001 | 2319.38 | 2360.4 | -0.7 | -0.6 | 19.0 | 2355.3 | 5.1 |
| 152 | 0110 1000 | 2335.00 | 2373.3 | 0.0 | -0.6 | 12.9 | 2371.2 | 2.1 |
| 153 | 0110 0111 | 2350.63 | 2378.8 | 0.5 | 0.5 | 5.6 | 2387.0 | -8.2 |
| 154 | 0110 0110 | 2366.25 | 2396.5 | 0.6 | 0.7 | 17.7 | 2402.9 | -6.4 |
| 155 | 0110 0101 | 2381.88 | 2419.6 | -0.4 | -0.4 | 23.1 | 2419.8 | 0.8 |
| 156 | 0110 0100 | 2397.50 | 2440.8 | -0.8 | -0.8 | 21.1 | 2434.6 | 6.1 |
| 157 | 0110 0011 | 2413.13 | 2445.5 | 0.6 | 0.0 | 4.8 | 2450.5 | -5.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 532

1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)

HAC
TEST
527

EX 30 71

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2468.5 | 0.7 | 0.7 | 23.0 | 2466.4 | 2.2 |
| 159 | 0110 0001 | 2444.38 | 2486.4 | -0.1 | 0.1 | 17.8 | 2482.3 | 4.1 |
| 160 | 0110 0000 | 2460.00 | 2495.2 | -0.7 | -0.5 | 8.8 | 2498.1 | -2.9 |
| 161 | 0101 1111 | 2475.63 | 2506.3 | -0.6 | -0.6 | 11.1 | 2514.0 | -7.7 |
| 162 | 0101 1110 | 2491.25 | 2520.5 | 0.6 | 0.6 | 14.1 | 2529.9 | -9.4 |
| 163 | 0101 1101 | 2506.88 | 2545.7 | 0.7 | 0.7 | 25.2 | 2545.7 | 0.0 |
| 164 | 0101 1100 | 2522.50 | 2560.9 | -0.6 | 0.0 | 15.1 | 2561.6 | -0.7 |
| 165 | 0101 1011 | 2538.13 | 2572.9 | -0.4 | -0.4 | 12.1 | 2577.5 | -4.5 |
| 166 | 0101 1010 | 2553.75 | 2594.0 | -0.0 | -0.6 | 21.0 | 2593.3 | 0.6 |
| 167 | 0101 1001 | 2569.33 | 2613.1 | 0.1 | 0.1 | 19.1 | 2609.2 | 3.9 |
| 168 | 0101 1000 | 2585.00 | 2618.6 | 0.5 | 0.6 | 5.4 | 2625.1 | -6.5 |
| 169 | 0101 0111 | 2600.63 | 2632.8 | -0.6 | -0.6 | 14.2 | 2640.9 | -8.1 |
| 170 | 0101 0110 | 2616.25 | 2649.7 | -0.6 | -0.6 | 16.9 | 2656.8 | -7.1 |
| 171 | 0101 0101 | 2631.88 | 2672.7 | 0.7 | 0.0 | 23.0 | 2672.7 | 0.0 |
| 172 | 0101 0100 | 2647.50 | 2689.7 | 0.4 | 0.6 | 17.0 | 2688.5 | 1.2 |
| 173 | 0101 0011 | 2663.13 | 2698.9 | -0.0 | 0.7 | 9.2 | 2704.4 | -5.5 |
| 174 | 0101 0010 | 2678.75 | 2723.5 | -0.6 | -0.6 | 24.6 | 2720.3 | 3.2 |
| 175 | 0101 0001 | 2694.38 | 2740.1 | -0.1 | -0.1 | 16.6 | 2736.1 | 3.9 |
| 176 | 0101 0000 | 2710.00 | 2753.7 | 0.7 | 0.7 | 13.6 | 2752.0 | 1.7 |
| 177 | 0100 1111 | 2725.63 | 2758.0 | 0.7 | 0.7 | 4.2 | 2767.9 | -9.9 |
| 178 | 0100 1110 | 2741.25 | 2773.3 | -0.6 | -0.0 | 15.3 | 2783.7 | -10.5 |
| 179 | 0100 1101 | 2756.88 | 2798.5 | -0.6 | -0.6 | 25.3 | 2799.6 | -1.1 |
| 180 | 0100 1100 | 2772.50 | 2816.6 | -0.0 | -0.6 | 18.1 | 2815.5 | 1.2 |
| 181 | 0100 1011 | 2788.13 | 2824.6 | 0.6 | 0.6 | 7.9 | 2831.4 | -6.8 |
| 182 | 0100 1010 | 2803.75 | 2845.7 | 0.6 | 0.6 | 21.1 | 2847.2 | -1.5 |
| 183 | 0100 1001 | 2819.38 | 2866.0 | -0.7 | -0.7 | 20.3 | 2863.1 | 2.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 533
1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2881.5 | -0.7 | -0.8 | 15.5 | 2879.0 | 2.5 |
| 185 | 0100 0111 | 2850.63 | 2884.3 | 0.6 | -0.0 | 2.8 | 2894.8 | -10.5 |
| 186 | 0100 0110 | 2866.25 | 2901.4 | 0.5 | 0.6 | 17.1 | 2910.7 | -9.3 |
| 187 | 0100 0101 | 2881.88 | 2924.9 | -0.1 | 0.7 | 23.4 | 2926.6 | -1.7 |
| 188 | 0100 0100 | 2897.50 | 2946.6 | -0.7 | -0.6 | 21.7 | 2942.4 | 4.2 |
| 189 | 0100 0011 | 2913.13 | 2951.7 | -0.7 | -0.6 | 5.1 | 2958.3 | -6.6 |
| 190 | 0100 0010 | 2928.75 | 2973.5 | 0.6 | 0.7 | 21.8 | 2974.2 | -0.6 |
| 191 | 0100 0001 | 2944.38 | 2992.2 | -0.6 | -0.2 | 18.7 | 2990.0 | 2.2 |
| 192 | 0100 0000 | 2960.00 | 3007.4 | -0.6 | 0.0 | 15.1 | 3005.9 | 1.5 |
| 193 | 0011 1111 | 2975.63 | 3013.6 | -0.8 | -0.8 | 6.2 | 3021.8 | -8.1 |
| 194 | 0011 1110 | 2991.25 | 3028.5 | -0.1 | -0.6 | 14.8 | 3037.6 | -9.2 |
| 195 | 0011 1101 | 3006.88 | 3053.7 | 0.5 | 0.6 | 25.2 | 3053.5 | 0.2 |
| 196 | 0011 1100 | 3022.50 | 3066.6 | 0.5 | 0.6 | 12.9 | 3069.4 | -2.7 |
| 197 | 0011 1011 | 3038.13 | 3080.8 | -0.6 | -0.6 | 14.1 | 3085.2 | -4.4 |
| 198 | 0011 1010 | 3053.75 | 3102.4 | -0.7 | -0.7 | 21.6 | 3101.1 | 1.3 |
| 199 | 0011 1001 | 3069.38 | 3121.5 | 0.6 | -0.0 | 19.1 | 3117.0 | 4.5 |
| 200 | 0011 1000 | 3085.00 | 3122.8 | 0.6 | 0.6 | 1.3 | 3132.8 | -10.1 |
| 201 | 0011 0111 | 3100.63 | 3140.2 | -0.1 | 0.6 | 17.4 | 3148.7 | -8.5 |
| 202 | 0011 0110 | 3116.25 | 3157.9 | -0.5 | -0.4 | 17.7 | 3164.6 | -6.6 |
| 203 | 0011 0101 | 3131.88 | 3182.0 | 0.0 | -0.6 | 24.1 | 3180.5 | 1.6 |
| 204 | 0011 0100 | 3147.50 | 3197.1 | 0.6 | 0.6 | 15.0 | 3196.3 | 0.7 |
| 205 | 0011 0011 | 3163.13 | 3207.4 | 0.6 | 0.7 | 10.3 | 3212.2 | -4.8 |
| 206 | 0011 0010 | 3178.75 | 3232.2 | -0.7 | 0.0 | 24.8 | 3228.1 | 4.1 |
| 207 | 0011 0001 | 3194.38 | 3249.9 | -0.8 | -0.6 | 17.7 | 3243.9 | 5.9 |
| 208 | 0011 0000 | 3210.00 | 3262.1 | 0.0 | -0.6 | 12.2 | 3259.8 | 2.3 |
| 209 | 0010 1111 | 3225.63 | 3266.7 | 0.8 | 0.9 | 4.6 | 3275.7 | -9.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 534

1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=9)



NO. 33 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POTNT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3281.9 | -0.0 | 0.6 | 15.2 | 3291.5 | -9.6 |
| 211 | 0010 1101 | 3256.88 | 3308.3 | -1.6 | -0.7 | 26.4 | 3307.4 | 0.9 |
| 212 | 0010 1100 | 3272.50 | 3325.4 | -0.8 | -0.7 | 17.0 | 3323.3 | 2.1 |
| 213 | 0010 1011 | 3288.13 | 3334.1 | 0.6 | 0.0 | 8.7 | 3339.1 | -5.0 |
| 214 | 0010 1010 | 3303.7 | 3355.3 | 0.0 | 1.5 | 21.2 | 3355.0 | 0.3 |
| 215 | 0010 1001 | 3319.38 | 3375.6 | 0.0 | 0.8 | 20.3 | 3370.9 | 4.7 |
| 216 | 0010 1000 | 3335.00 | 3388.5 | 1.0 | -1.0 | 12.9 | 3386.7 | 1.8 |
| 217 | 0010 0111 | 3350.63 | 3394.9 | -0.1 | -0.5 | 6.4 | 3402.6 | -7.7 |
| 218 | 0010 0110 | 3366.25 | 3411.8 | 0.6 | 0.6 | 16.9 | 3418.5 | -6.7 |
| 219 | 0010 0101 | 3381.88 | 3435.7 | 0.3 | 0.2 | 23.9 | 3434.3 | 1.4 |
| 220 | 0010 0100 | 3397.50 | 3456.2 | -0.7 | 0.1 | 20.5 | 3450.2 | 6.0 |
| 221 | 0010 0011 | 3413.13 | 3462.4 | -0.6 | -0.6 | 6.2 | 3466.1 | -3.7 |
| 222 | 0010 0010 | 3428.75 | 3488.0 | -0.1 | -0.7 | 25.6 | 3481.9 | 6.0 |
| 223 | 0010 0001 | 3444.38 | 3503.8 | 0.7 | 0.8 | 15.8 | 3497.8 | 6.0 |
| 224 | 0010 0000 | 3460.00 | 3515.0 | -0.1 | 0.7 | 11.2 | 3513.7 | 1.3 |
| 225 | 0001 1111 | 3475.63 | 3523.7 | -0.8 | -0.7 | 8.6 | 3529.6 | -5.9 |
| 226 | 0001 1110 | 3491.25 | 3537.9 | -0.8 | -0.7 | 14.2 | 3545.4 | -7.5 |
| 227 | 0001 1101 | 3506.88 | 3564.0 | 0.6 | 0.1 | 26.1 | 3561.3 | 2.7 |
| 228 | 0001 1100 | 3522.50 | 3577.1 | 0.5 | 0.7 | 13.0 | 3577.2 | -0.1 |
| 229 | 0001 1011 | 3538.13 | 3590.5 | -0.0 | 0.7 | 13.4 | 3593.0 | -2.5 |
| 230 | 0001 1010 | 3553.75 | 3612.4 | -0.8 | -0.7 | 21.9 | 3608.9 | 3.5 |
| 231 | 0001 1001 | 3569.38 | 3633.0 | -0.1 | -0.6 | 20.6 | 3624.8 | 8.2 |
| 232 | 0001 1000 | 3585.00 | 3636.1 | 0.7 | 0.6 | 3.1 | 3640.6 | -4.5 |
| 233 | 0001 0111 | 3600.63 | 3651.2 | 0.6 | 0.7 | 15.1 | 3656.5 | -5.3 |
| 234 | 0001 0110 | 3616.25 | 3668.6 | -0.7 | -0.0 | 17.4 | 3672.4 | -3.7 |
| 235 | 0001 0101 | 3631.88 | 3693.4 | -0.9 | -0.8 | 24.7 | 3688.2 | 5.1 |
| 236 | 0001 0100 | 3647.50 | 3709.1 | -0.1 | -0.6 | 15.8 | 3704.1 | 5.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 535

1981/11/30 14:39:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=9)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3718.4 | 1.1 | 1.2 | 9.3 | 3720.0 | -1.6 |
| 238 | 0001 0010 | 3678.75 | 3742.6 | -0.1 | 0.8 | 24.2 | 3735.8 | 6.8 |
| 239 | 0001 0001 | 3694.38 | 3761.9 | -0.9 | -0.7 | 19.3 | 3751.7 | 10.2 |
| 240 | 0001 0000 | 3710.00 | 3778.1 | -0.8 | -0.6 | 16.2 | 3767.6 | 10.5 |
| 241 | 0000 1111 | 3725.63 | 3779.0 | 0.7 | 0.0 | 0.9 | 3783.4 | -4.4 |
| 242 | 0000 1110 | 3741.25 | 3793.4 | 0.6 | 0.8 | 14.4 | 3799.3 | -5.9 |
| 243 | 0000 1101 | 3756.88 | 3820.1 | -0.2 | 0.8 | 26.8 | 3815.2 | 5.0 |
| 244 | 0000 1100 | 3772.50 | 3838.1 | -0.8 | -0.7 | 17.9 | 3831.0 | 7.0 |
| 245 | 0000 1011 | 3788.13 | 3847.4 | -0.7 | -0.7 | 9.3 | 3846.9 | 0.5 |
| 246 | 0000 1010 | 3803.75 | 3868.3 | 0.5 | 0.6 | 20.9 | 3862.8 | 5.5 |
| 247 | 0000 1001 | 3819.38 | 3888.7 | 0.5 | 0.7 | 20.4 | 3878.7 | 10.1 |
| 248 | 0000 1000 | 3835.00 | 3903.8 | -0.2 | 0.0 | 15.1 | 3894.5 | 9.3 |
| 249 | 0000 0111 | 3850.63 | 3908.1 | -0.5 | -0.4 | 4.3 | 3910.4 | -2.3 |
| 250 | 0000 0110 | 3866.25 | 3925.1 | -0.1 | -0.7 | 16.9 | 3926.3 | -1.2 |
| 251 | 0000 0101 | 3881.88 | 3949.1 | 0.6 | 0.8 | 24.0 | 3942.1 | 7.0 |
| 252 | 0000 0100 | 3897.50 | 3969.2 | 0.5 | 0.7 | 20.0 | 3958.0 | 11.2 |
| 253 | 0000 0011 | 3913.13 | 3976.2 | -0.7 | -0.6 | 7.0 | 3973.9 | 2.3 |
| 254 | 0000 0010 | 3928.75 | 4000.8 | -0.4 | -0.2 | 24.6 | 3989.7 | 11.0 |
| 255 | 0000 0001 | 3944.38 | 4018.0 | 0.7 | 0.0 | 17.2 | 4005.6 | 12.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 536
 1981/11/30 14:45:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10)
 S U M M A R Y

HAC
 1-5T
 527

REV 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.873X - 40.4MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.589%
 OFFSET IS: -40.4MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998370$
 ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.808MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.1MV | 227 | 15.944MV | 0.9MV | 200 | 5.775MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.8MV | 197 | -0.058MV | -3.3MV | 222 | .514MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 5.6MV | 161 | 0.061MV | -0.9MV | 210 | .699MV |

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TEST PASSED



HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 537
 1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10) NOV 30 '81

| THRESHOLD A/D OUTPUT | IDEAL | ANALOG INPUT VOLTAGE (MV) | | | INCREASE | BEST FIT STRAIGHT LINE | |
|----------------------|-------|---------------------------|-------|-------|-----------|------------------------|-----------|
| NUMBER THRESHOLD | VALUE | LEVELS RATIO= 1 : 1 | | | FROM PREV | POINT | DEVIATION |
| | (MV) | NOMINAL | LOWER | UPPER | THRESHOLD | | |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -32.0 | 0.5 | 0.9 | | -24.5 | -7.5 |
| 2 | 1111 1110 | -8.750 | -17.5 | -0.1 | 0.5 | 14.5 | -8.7 | -8.9 |
| 3 | 1111 1101 | 6.875 | 7.6 | -0.6 | -0.6 | 25.1 | 7.2 | 0.4 |
| 4 | 1111 1100 | 22.500 | 20.4 | -0.6 | -0.5 | 12.8 | 23.1 | -2.7 |
| 5 | 1111 1011 | 38.125 | 35.4 | 0.5 | 0.0 | 15.0 | 39.0 | -3.6 |
| 6 | 1111 1010 | 53.750 | 54.4 | 0.5 | 0.5 | 19.0 | 54.8 | -0.4 |
| 7 | 1111 1001 | 69.375 | 74.4 | -0.1 | 0.5 | 20.0 | 70.7 | 3.7 |
| 8 | 1111 1000 | 85.000 | 79.7 | -0.5 | -0.5 | 5.3 | 86.6 | -6.9 |
| 9 | 1111 0111 | 100.625 | 96.7 | -0.0 | -0.5 | 17.0 | 102.5 | -5.8 |
| 10 | 1111 0110 | 116.250 | 113.0 | 0.4 | 0.5 | 16.3 | 118.3 | -5.3 |
| 11 | 1111 0101 | 131.875 | 135.3 | 0.4 | 0.5 | 22.2 | 134.2 | 1.1 |
| 12 | 1111 0100 | 147.500 | 152.0 | -0.5 | 0.1 | 16.7 | 150.1 | 1.9 |
| 13 | 1111 0011 | 163.125 | 163.9 | -0.6 | -0.5 | 11.9 | 165.9 | -2.1 |
| 14 | 1111 0010 | 178.750 | 185.6 | -0.1 | -0.5 | 21.7 | 181.8 | 3.8 |
| 15 | 1111 0001 | 194.375 | 202.2 | 0.4 | 0.5 | 16.6 | 197.7 | 4.5 |
| 16 | 1111 0000 | 210.000 | 211.4 | 0.0 | 0.5 | 9.2 | 213.6 | -2.1 |
| 17 | 1110 1111 | 225.625 | 224.2 | -0.7 | -0.4 | 12.7 | 229.4 | -5.3 |
| 18 | 1110 1110 | 241.250 | 238.6 | -0.6 | -0.5 | 14.5 | 245.3 | -6.7 |
| 19 | 1110 1101 | 256.875 | 262.4 | 0.5 | 0.1 | 23.8 | 261.2 | 1.2 |
| 20 | 1110 1100 | 272.500 | 278.4 | 0.4 | 0.5 | 16.0 | 277.1 | 1.4 |
| 21 | 1110 1011 | 288.125 | 290.6 | -0.1 | 0.5 | 12.2 | 292.9 | -2.3 |
| 22 | 1110 1010 | 303.750 | 310.6 | -0.5 | -0.5 | 19.9 | 308.8 | 1.8 |
| 23 | 1110 1001 | 319.375 | 330.3 | -0.1 | -0.6 | 19.7 | 324.7 | 5.6 |
| 24 | 1110 1000 | 335.000 | 342.0 | 0.4 | 0.4 | 11.8 | 340.5 | 1.5 |
| 25 | 1110 0111 | 350.625 | 351.3 | 0.5 | 0.6 | 9.3 | 356.4 | -5.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 538
 1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10) NOV 30 '81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 369.0 | -0.5 | 0.0 | 17.7 | 372.3 | -3.3 |
| 27 | 1110 0101 | 381.875 | 391.0 | -0.7 | -0.6 | 22.0 | 388.2 | 2.9 |
| 28 | 1110 0100 | 397.500 | 410.7 | -0.1 | -0.5 | 19.6 | 404.0 | 6.6 |
| 29 | 1110 0011 | 413.125 | 418.4 | 0.5 | 0.5 | 7.7 | 419.9 | -1.6 |
| 30 | 1110 0010 | 428.750 | 440.5 | -0.1 | 0.5 | 22.1 | 435.8 | 4.7 |
| 31 | 1110 0001 | 444.375 | 457.7 | -0.6 | -0.6 | 17.2 | 451.7 | 6.0 |
| 32 | 1110 0000 | 460.000 | 464.8 | -0.4 | -0.4 | 7.1 | 467.5 | 2.8 |
| 33 | 1101 1111 | 475.625 | 481.1 | -0.8 | 0.6 | 16.4 | 483.4 | -2.3 |
| 34 | 1101 1110 | 491.250 | 493.5 | 0.4 | 0.4 | 12.4 | 499.3 | -5.7 |
| 35 | 1101 1101 | 506.875 | 518.7 | -0.1 | 0.5 | 25.2 | 515.2 | 3.6 |
| 36 | 1101 1100 | 522.500 | 531.5 | -0.4 | -0.5 | 12.8 | 531.0 | 0.5 |
| 37 | 1101 1011 | 538.125 | 547.3 | -0.1 | -0.5 | 15.8 | 546.9 | 0.4 |
| 38 | 1101 1010 | 553.750 | 565.2 | 0.4 | 0.5 | 17.9 | 562.8 | 2.4 |
| 39 | 1101 1001 | 569.375 | 585.8 | 0.5 | 0.6 | 20.6 | 578.6 | 7.2 |
| 40 | 1101 1000 | 585.000 | 593.2 | -0.5 | -0.0 | 7.4 | 594.5 | -1.3 |
| 41 | 1101 0111 | 600.625 | 607.9 | -0.6 | -0.5 | 14.6 | 610.4 | -2.5 |
| 42 | 1101 0110 | 616.250 | 624.0 | -0.0 | -0.6 | 16.2 | 626.3 | -2.2 |
| 43 | 1101 0101 | 631.875 | 646.3 | 0.5 | 0.6 | 22.3 | 642.1 | 4.2 |
| 44 | 1101 0100 | 647.500 | 661.9 | 0.0 | 0.6 | 15.6 | 658.0 | 3.9 |
| 45 | 1101 0011 | 663.125 | 674.6 | -0.6 | -0.5 | 12.7 | 673.9 | 0.7 |
| 46 | 1101 0010 | 678.750 | 695.9 | -0.5 | -0.5 | 21.3 | 689.8 | 6.1 |
| 47 | 1101 0001 | 694.375 | 712.3 | 0.6 | 0.1 | 16.4 | 705.6 | 6.7 |
| 48 | 1101 0000 | 710.000 | 725.8 | 0.6 | 0.6 | 13.4 | 721.5 | 4.3 |
| 49 | 1100 1111 | 725.625 | 735.0 | 0.4 | 0.6 | 9.2 | 737.4 | -2.4 |
| 50 | 1100 1110 | 741.250 | 748.2 | -0.4 | -0.5 | 13.2 | 753.3 | -5.1 |
| 51 | 1100 1101 | 756.875 | 773.2 | -0.1 | -0.6 | 25.0 | 769.1 | 4.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 539

1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10)



AS 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 788.2 | 0.4 | 0.5 | 15.0 | 785.0 | 3.2 |
| 53 | 1100 1011 | 788.125 | 800.4 | 0.5 | 0.5 | 12.2 | 800.9 | -0.5 |
| 54 | 1100 1010 | 803.750 | 819.9 | -0.6 | -0.0 | 19.5 | 816.7 | 3.2 |
| 55 | 1100 1001 | 819.375 | 839.4 | -0.3 | -0.3 | 19.5 | 832.6 | 6.8 |
| 56 | 1100 1000 | 835.000 | 854.7 | -0.1 | -0.3 | 15.3 | 848.5 | 6.2 |
| 57 | 1100 0111 | 850.625 | 860.7 | 0.5 | 0.6 | 6.0 | 864.4 | -3.7 |
| 58 | 1100 0110 | 866.250 | 876.9 | -0.0 | 0.5 | 16.3 | 880.2 | -3.3 |
| 59 | 1100 0101 | 881.875 | 900.0 | -0.7 | -0.6 | 23.1 | 896.1 | 3.9 |
| 60 | 1100 0100 | 897.500 | 919.5 | -0.4 | -0.3 | 19.5 | 912.0 | 7.5 |
| 61 | 1100 0011 | 913.125 | 927.0 | 0.5 | 0.0 | 7.4 | 927.9 | -0.9 |
| 62 | 1100 0010 | 928.750 | 948.4 | 0.5 | 0.5 | 21.5 | 943.7 | 4.7 |
| 63 | 1100 0001 | 944.375 | 964.8 | -0.0 | 0.5 | 16.3 | 959.6 | 5.2 |
| 64 | 1100 0000 | 960.000 | 977.3 | -0.5 | -0.5 | 12.5 | 975.5 | 1.8 |
| 65 | 1011 1111 | 975.625 | 993.2 | 0.0 | -0.5 | 15.9 | 991.4 | 1.9 |
| 66 | 1011 1110 | 991.250 | 1002.9 | 0.5 | 0.5 | 9.7 | 1007.2 | -4.3 |
| 67 | 1011 1101 | 1006.88 | 1028.1 | 0.5 | 0.6 | 25.2 | 1023.1 | 5.0 |
| 68 | 1011 1100 | 1022.50 | 1040.3 | -0.5 | 0.1 | 12.2 | 1039.0 | 1.4 |
| 69 | 1011 1011 | 1038.13 | 1056.1 | -0.6 | -0.6 | 15.8 | 1054.8 | 1.3 |
| 70 | 1011 1010 | 1053.75 | 1075.0 | 0.0 | -0.5 | 18.8 | 1070.7 | 4.3 |
| 71 | 1011 1001 | 1069.38 | 1095.3 | 0.6 | 0.6 | 20.3 | 1086.6 | 8.7 |
| 72 | 1011 1000 | 1085.00 | 1097.8 | -0.0 | 0.4 | 2.5 | 1102.5 | -4.7 |
| 73 | 1011 0111 | 1100.63 | 1116.1 | -0.5 | -0.5 | 18.3 | 1118.3 | -2.3 |
| 74 | 1011 0110 | 1116.25 | 1132.4 | -0.5 | -0.5 | 16.3 | 1134.2 | -1.8 |
| 75 | 1011 0101 | 1131.88 | 1155.0 | 0.5 | 0.0 | 22.6 | 1150.1 | 4.9 |
| 76 | 1011 0100 | 1147.50 | 1169.6 | 0.6 | 0.7 | 14.5 | 1166.0 | 3.6 |
| 77 | 1011 0011 | 1163.13 | 1182.0 | 0.1 | 0.6 | 12.4 | 1181.8 | 0.2 |
| 78 | 1011 0010 | 1178.75 | 1204.9 | -0.5 | -0.5 | 22.9 | 1197.7 | 7.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 540
 1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10)



REV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 :1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1221.5 | -0.1 | -0.6 | 16.5 | 1213.6 | 7.9 |
| 80 | 1011 0000 | 1210.00 | 1232.4 | 0.5 | 0.5 | 10.9 | 1229.5 | 2.9 |
| 81 | 1010 1111 | 1225.63 | 1245.0 | 0.5 | 0.5 | 12.6 | 1245.3 | -0.4 |
| 82 | 1010 1110 | 1241.25 | 1255.8 | -0.5 | 0.0 | 10.8 | 1261.2 | -5.4 |
| 83 | 1010 1101 | 1256.88 | 1280.8 | -0.6 | -0.6 | 25.0 | 1277.1 | 3.8 |
| 84 | 1010 1100 | 1272.50 | 1294.9 | -0.1 | 0.9 | 14.0 | 1292.9 | 1.9 |
| 85 | 1010 1011 | 1288.13 | 1307.6 | 0.5 | 0.5 | 12.7 | 1308.8 | -1.2 |
| 86 | 1010 1010 | 1303.75 | 1327.1 | 0.0 | 0.5 | 19.5 | 1324.7 | 2.4 |
| 87 | 1010 1001 | 1319.38 | 1347.8 | -0.5 | -0.5 | 20.7 | 1340.6 | 7.3 |
| 88 | 1010 1000 | 1335.00 | 1358.9 | -0.5 | -0.5 | 11.0 | 1356.4 | 2.4 |
| 89 | 1010 0111 | 1350.63 | 1367.5 | 0.6 | 0.0 | 8.6 | 1372.3 | -4.8 |
| 90 | 1010 0110 | 1366.25 | 1383.9 | 0.6 | 0.5 | 16.4 | 1388.2 | -4.3 |
| 91 | 1010 0101 | 1381.88 | 1406.8 | 0.0 | 0.6 | 22.9 | 1404.1 | 2.7 |
| 92 | 1010 0100 | 1397.50 | 1425.5 | -0.5 | -0.5 | 18.8 | 1419.9 | 5.6 |
| 93 | 1010 0011 | 1413.13 | 1434.3 | -0.1 | -0.6 | 8.8 | 1435.8 | -1.5 |
| 94 | 1010 0010 | 1428.75 | 1456.1 | 0.2 | 0.2 | 21.8 | 1451.7 | 4.5 |
| 95 | 1010 0001 | 1444.38 | 1472.3 | 0.6 | 0.6 | 16.1 | 1467.6 | 4.7 |
| 96 | 1010 0000 | 1460.00 | 1484.8 | -0.0 | 0.0 | 12.5 | 1483.4 | 1.4 |
| 97 | 1001 1111 | 1475.63 | 1498.7 | -0.6 | -0.5 | 13.8 | 1499.3 | -0.6 |
| 98 | 1001 1110 | 1491.25 | 1508.1 | -0.1 | -0.6 | 9.5 | 1515.2 | -7.0 |
| 99 | 1001 1101 | 1506.88 | 1533.4 | 0.6 | 0.6 | 25.3 | 1531.0 | 2.4 |
| 100 | 1001 1100 | 1522.50 | 1543.5 | 0.1 | 0.6 | 10.1 | 1546.9 | -3.4 |
| 101 | 1001 1011 | 1538.13 | 1561.3 | -0.6 | -0.5 | 17.8 | 1562.8 | -1.5 |
| 102 | 1001 1010 | 1553.75 | 1579.5 | -0.6 | -0.6 | 18.2 | 1578.7 | 0.9 |
| 103 | 1001 1001 | 1569.38 | 1600.4 | 0.5 | -0.0 | 20.8 | 1594.5 | 5.8 |
| 104 | 1001 1000 | 1585.00 | 1605.0 | 0.7 | 0.6 | 4.6 | 1610.4 | -5.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 541

1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1624.4 | -0.1 | 0.5 | 19.4 | 1626.3 | -1.9 |
| 106 | 1001 0110 | 1616.25 | 1636.8 | -0.5 | -0.5 | 12.3 | 1642.2 | -5.4 |
| 107 | 1001 0101 | 1631.88 | 1660.4 | -0.0 | -0.6 | 23.7 | 1658.0 | 2.4 |
| 108 | 1001 0100 | 1647.50 | 1674.2 | 0.5 | 0.6 | 13.8 | 1673.9 | 0.3 |
| 109 | 1001 0011 | 1663.13 | 1686.9 | 0.5 | 0.6 | 12.7 | 1689.8 | -2.9 |
| 110 | 1001 0010 | 1678.75 | 1709.1 | -0.5 | 0.0 | 22.2 | 1705.7 | 3.4 |
| 111 | 1001 0001 | 1694.38 | 1725.7 | -0.5 | -0.5 | 16.6 | 1721.5 | 4.2 |
| 112 | 1001 0000 | 1710.00 | 1742.1 | -0.1 | 0.0 | 16.4 | 1737.4 | 4.7 |
| 113 | 1000 1111 | 1725.63 | 1749.8 | 0.5 | 0.5 | 7.7 | 1753.3 | -3.5 |
| 114 | 1000 1110 | 1741.25 | 1759.5 | 0.1 | 0.5 | 9.7 | 1769.1 | -9.7 |
| 115 | 1000 1101 | 1756.88 | 1785.8 | -0.6 | -0.6 | 26.3 | 1785.0 | 0.8 |
| 116 | 1000 1100 | 1772.50 | 1799.5 | -0.6 | -0.5 | 13.7 | 1800.9 | -1.4 |
| 117 | 1000 1011 | 1788.13 | 1812.5 | 0.6 | 0.1 | 12.9 | 1816.8 | -4.3 |
| 118 | 1000 1010 | 1803.75 | 1831.2 | 0.6 | 0.6 | 18.7 | 1832.6 | -1.5 |
| 119 | 1000 1001 | 1819.38 | 1850.7 | -0.0 | 1.9 | 19.5 | 1848.5 | 2.2 |
| 120 | 1000 1000 | 1835.00 | 1866.7 | -0.5 | -0.6 | 16.0 | 1864.4 | 2.3 |
| 121 | 1000 0111 | 1850.63 | 1876.4 | -0.0 | -0.5 | 9.7 | 1880.3 | -3.9 |
| 122 | 1000 0110 | 1866.25 | 1888.0 | 0.5 | 0.5 | 11.6 | 1896.1 | -8.2 |
| 123 | 1000 0101 | 1881.88 | 1911.4 | 0.4 | 0.6 | 23.4 | 1912.0 | -0.6 |
| 124 | 1000 0100 | 1897.50 | 1930.1 | -0.6 | 0.0 | 18.7 | 1927.9 | 2.2 |
| 125 | 1000 0011 | 1913.13 | 1938.9 | -0.6 | -0.6 | 8.9 | 1943.8 | -4.8 |
| 126 | 1000 0010 | 1928.75 | 1961.5 | 0.0 | -0.6 | 22.6 | 1959.6 | 1.9 |
| 127 | 1000 0001 | 1944.38 | 1976.4 | 0.6 | 0.6 | 14.8 | 1975.5 | 0.9 |
| 128 | 1000 0000 | 1960.00 | 1994.8 | -0.0 | 0.4 | 18.4 | 1991.4 | 3.4 |
| 129 | 0111 1111 | 1975.63 | 2002.2 | -0.6 | -0.5 | 7.4 | 2007.2 | -5.0 |
| 130 | 0111 1110 | 1991.25 | 2017.5 | -0.6 | -0.5 | 15.3 | 2023.1 | -5.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 542

1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10) MV 30 '81

HAC
TEST
527

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2041.8 | 0.5 | 0.0 | 24.3 | 2039.0 | 2.8 |
| 132 | 0111 1100 | 2022.50 | 2055.6 | 0.5 | 0.5 | 13.8 | 2054.9 | 0.8 |
| 133 | 0111 1011 | 2038.13 | 2068.5 | 0.0 | 0.5 | 17.8 | 2070.7 | -2.3 |
| 134 | 0111 1010 | 2053.75 | 2090.2 | -0.4 | -0.5 | 21.7 | 2086.6 | 3.6 |
| 135 | 0111 1001 | 2069.38 | 2109.7 | 0.0 | -0.5 | 19.4 | 2102.5 | 7.2 |
| 136 | 0111 1000 | 2085.00 | 2111.9 | 0.4 | 0.4 | 2.7 | 2118.4 | -6.4 |
| 137 | 0111 0111 | 2100.63 | 2128.1 | 0.4 | 0.6 | 16.2 | 2134.2 | -6.1 |
| 138 | 0111 0110 | 2116.25 | 2146.3 | -0.9 | -0.0 | 18.2 | 2150.1 | -3.8 |
| 139 | 0111 0101 | 2131.88 | 2169.2 | -0.6 | -0.6 | 22.9 | 2166.0 | 3.3 |
| 140 | 0111 0100 | 2147.50 | 2186.1 | -0.1 | -0.5 | 16.9 | 2181.8 | 4.3 |
| 141 | 0111 0011 | 2163.13 | 2194.9 | 0.5 | 0.5 | 8.8 | 2197.7 | -2.8 |
| 142 | 0111 0010 | 2178.75 | 2219.6 | 0.0 | 0.5 | 24.7 | 2213.6 | 6.0 |
| 143 | 0111 0001 | 2194.38 | 2235.4 | -0.6 | -0.5 | 15.8 | 2229.5 | 6.0 |
| 144 | 0111 0000 | 2210.00 | 2245.2 | -0.6 | -0.6 | 9.8 | 2245.3 | -0.1 |
| 145 | 0110 1111 | 2225.63 | 2253.7 | 0.6 | 0.1 | 8.5 | 2261.2 | -7.5 |
| 146 | 0110 1110 | 2241.25 | 2269.3 | 0.5 | 0.5 | 15.5 | 2277.1 | -7.8 |
| 147 | 0110 1101 | 2256.88 | 2293.9 | 0.0 | 0.6 | 24.6 | 2293.0 | 0.9 |
| 148 | 0110 1100 | 2272.50 | 2312.6 | -0.6 | -0.6 | 18.7 | 2308.8 | 3.8 |
| 149 | 0110 1011 | 2288.13 | 2320.9 | 0.0 | -0.4 | 8.3 | 2324.7 | -3.8 |
| 150 | 0110 1010 | 2303.75 | 2342.7 | 0.5 | 0.5 | 21.3 | 2340.6 | 1.6 |
| 151 | 0110 1001 | 2319.38 | 2361.1 | 0.5 | 0.6 | 18.5 | 2356.5 | 4.7 |
| 152 | 0110 1000 | 2335.00 | 2374.2 | -0.5 | -0.0 | 13.1 | 2372.3 | 1.9 |
| 153 | 0110 0111 | 2350.63 | 2380.5 | -0.6 | -0.5 | 6.3 | 2388.2 | -7.7 |
| 154 | 0110 0110 | 2366.25 | 2398.4 | 0.0 | -0.6 | 17.8 | 2404.1 | -5.7 |
| 155 | 0110 0101 | 2381.88 | 2420.5 | 0.6 | 0.6 | 22.1 | 2419.9 | 0.6 |
| 156 | 0110 0100 | 2397.50 | 2441.5 | -0.0 | 0.5 | 20.9 | 2435.8 | 5.6 |
| 157 | 0110 0011 | 2413.13 | 2447.1 | -0.6 | -0.5 | 5.7 | 2451.7 | -4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 543
 1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10)



NO 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2470.4 | -0.5 | -0.5 | 23.2 | 2467.6 | 2.8 |
| 159 | 0110 0001 | 2444.38 | 2486.4 | 0.6 | 0.0 | 16.0 | 2483.4 | 3.0 |
| 160 | 0110 0000 | 2460.00 | 2495.0 | 0.5 | 0.5 | 8.6 | 2499.3 | -4.3 |
| 161 | 0101 1111 | 2475.63 | 2507.1 | -0.0 | 5.6 | 12.0 | 2515.2 | -8.1 |
| 162 | 0101 1110 | 2491.25 | 2522.3 | -0.5 | -0.6 | 15.2 | 2531.1 | -9.8 |
| 163 | 0101 1101 | 2506.88 | 2547.8 | -0.0 | -0.6 | 25.5 | 2546.9 | 0.8 |
| 164 | 0101 1100 | 2522.50 | 2561.5 | 0.5 | 0.5 | 13.7 | 2562.8 | -1.3 |
| 165 | 0101 1011 | 2538.13 | 2573.7 | 0.5 | 0.6 | 12.2 | 2578.7 | -5.0 |
| 166 | 0101 1010 | 2553.75 | 2595.3 | -0.5 | 0.0 | 21.6 | 2594.6 | 0.7 |
| 167 | 0101 1001 | 2569.38 | 2615.1 | -0.7 | -0.6 | 19.9 | 2610.4 | 4.7 |
| 168 | 0101 1000 | 2585.00 | 2620.0 | -0.1 | -0.6 | 4.9 | 2626.3 | -6.3 |
| 169 | 0101 0111 | 2600.63 | 2633.5 | 0.6 | 0.6 | 13.4 | 2642.2 | -8.7 |
| 170 | 0101 0110 | 2616.25 | 2650.5 | -0.0 | 0.5 | 17.0 | 2658.0 | -7.6 |
| 171 | 0101 0101 | 2631.88 | 2674.7 | -0.8 | -0.7 | 24.2 | 2673.9 | 0.7 |
| 172 | 0101 0100 | 2647.50 | 2691.7 | -0.6 | -0.6 | 17.0 | 2689.8 | 1.9 |
| 173 | 0101 0011 | 2663.13 | 2706.1 | 0.5 | 0.1 | 8.4 | 2705.7 | -5.6 |
| 174 | 0101 0010 | 2678.75 | 2724.3 | 0.5 | 0.6 | 24.2 | 2721.5 | 2.7 |
| 175 | 0101 0001 | 2694.38 | 2739.7 | 0.0 | 0.6 | 15.4 | 2737.4 | 2.3 |
| 176 | 0101 0000 | 2710.00 | 2754.6 | -0.6 | -0.6 | 14.8 | 2753.3 | 1.3 |
| 177 | 0100 1111 | 2725.63 | 2765.0 | -0.1 | -0.6 | 10.4 | 2769.2 | -4.2 |
| 178 | 0100 1110 | 2741.25 | 2773.9 | 0.5 | 0.9 | 8.9 | 2785.0 | -11.1 |
| 179 | 0100 1101 | 2756.88 | 2799.3 | 0.6 | 0.7 | 25.3 | 2800.9 | -1.7 |
| 180 | 0100 1100 | 2772.50 | 2818.6 | -0.6 | 0.0 | 19.3 | 2816.8 | 1.8 |
| 181 | 0100 1011 | 2788.13 | 2826.3 | -0.6 | -0.5 | 7.7 | 2832.7 | -6.4 |
| 182 | 0100 1010 | 2803.75 | 2847.5 | -0.1 | -0.3 | 21.2 | 2848.5 | -1.1 |
| 183 | 0100 1001 | 2819.38 | 2866.6 | 0.7 | 0.6 | 19.2 | 2864.4 | 2.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 544
 1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2881.8 | -0.1 | 0.6 | 15.2 | 2880.3 | 1.6 |
| 185 | 0100 0111 | 2850.63 | 2886.3 | -0.6 | -0.6 | 4.4 | 2896.1 | -9.9 |
| 186 | 0100 0110 | 2866.25 | 2903.3 | -0.6 | -0.6 | 17.0 | 2912.0 | -8.7 |
| 187 | 0100 0101 | 2881.88 | 2926.3 | 0.6 | -0.0 | 23.0 | 2927.9 | -1.6 |
| 188 | 0100 0100 | 2897.50 | 2947.1 | 0.6 | 0.6 | 20.8 | 2943.8 | 3.3 |
| 189 | 0100 0011 | 2913.13 | 2952.1 | -0.0 | 0.7 | 5.0 | 2959.6 | -7.6 |
| 190 | 0100 0010 | 2928.75 | 2975.4 | -0.6 | -0.6 | 23.3 | 2975.5 | -0.1 |
| 191 | 0100 0001 | 2944.38 | 2992.3 | -0.0 | -0.6 | 16.9 | 2991.4 | 0.9 |
| 192 | 0100 0000 | 2960.00 | 3008.3 | 0.3 | 0.3 | 15.9 | 3007.3 | 1.0 |
| 193 | 0011 1111 | 2975.63 | 3014.4 | 0.5 | 0.5 | 6.1 | 3023.1 | -8.8 |
| 194 | 0011 1110 | 2991.25 | 3029.8 | -0.6 | 0.0 | 15.5 | 3039.0 | -9.2 |
| 195 | 0011 1101 | 3006.88 | 3055.6 | -0.6 | -0.6 | 25.8 | 3054.9 | 0.8 |
| 196 | 0011 1100 | 3022.50 | 3068.5 | 0.0 | -0.6 | 12.9 | 3070.8 | -2.2 |
| 197 | 0011 1011 | 3038.13 | 3081.1 | 0.8 | 0.8 | 12.6 | 3086.6 | -5.5 |
| 198 | 0011 1010 | 3053.75 | 3102.9 | -0.1 | 0.5 | 21.8 | 3102.5 | 0.4 |
| 199 | 0011 1001 | 3069.38 | 3123.5 | -0.7 | -0.6 | 20.6 | 3118.4 | 5.1 |
| 200 | 0011 1000 | 3085.00 | 3124.5 | -0.6 | -0.6 | 0.9 | 3134.2 | -9.8 |
| 201 | 0011 0111 | 3100.63 | 3141.5 | 0.4 | 0.0 | 17.0 | 3150.1 | -8.7 |
| 202 | 0011 0110 | 3116.25 | 3158.8 | 0.4 | 0.4 | 17.4 | 3166.0 | -7.2 |
| 203 | 0011 0101 | 3131.88 | 3182.9 | -0.1 | 0.6 | 24.1 | 3181.9 | 1.1 |
| 204 | 0011 0100 | 3147.50 | 3199.0 | -0.7 | -0.7 | 16.1 | 3197.7 | 1.3 |
| 205 | 0011 0011 | 3163.13 | 3209.1 | 0.0 | -0.6 | 10.1 | 3213.6 | -4.5 |
| 206 | 0011 0010 | 3178.75 | 3232.9 | 0.5 | 0.6 | 23.8 | 3229.5 | 3.4 |
| 207 | 0011 0001 | 3194.38 | 3249.0 | 0.6 | 0.7 | 16.0 | 3245.4 | 3.6 |
| 208 | 0011 0000 | 3210.00 | 3261.6 | -1.1 | 0.4 | 12.6 | 3261.2 | 0.3 |
| 209 | 0010 1111 | 3225.63 | 3268.9 | -0.6 | 4.8 | 7.3 | 3277.1 | -8.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 545

1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=10) EL 30 M

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3283.8 | 0.0 | -0.9 | 15.0 | 3293.0 | -9.1 |
| 211 | 0010 1101 | 3256.88 | 3309.0 | 0.5 | 0.6 | 25.1 | 3308.9 | 0.1 |
| 212 | 0010 1100 | 3272.50 | 3326.4 | -0.1 | 0.6 | 17.4 | 3324.7 | 1.7 |
| 213 | 0010 1011 | 3288.13 | 3335.9 | -0.6 | -0.6 | 9.5 | 3340.6 | -4.7 |
| 214 | 0010 1010 | 3303.75 | 3358.0 | -0.6 | -0.5 | 22.1 | 3356.5 | 1.5 |
| 215 | 0010 1001 | 3317.38 | 3377.2 | 0.5 | 0.9 | 19.2 | 3372.3 | 4.9 |
| 216 | 0010 1000 | 3335.00 | 3389.0 | 0.5 | 0.5 | 11.7 | 3388.2 | 0.7 |
| 217 | 0010 0111 | 3350.63 | 3395.8 | -0.0 | 0.6 | 6.8 | 3404.1 | -8.3 |
| 218 | 0010 0110 | 3366.25 | 3413.7 | -0.6 | -0.7 | 18.0 | 3420.0 | -6.2 |
| 219 | 0010 0101 | 3381.88 | 3427.9 | -0.1 | -0.7 | 24.1 | 3435.8 | 2.0 |
| 220 | 0010 0100 | 3397.50 | 3456.9 | 0.5 | 0.5 | 15.0 | 3451.7 | 5.2 |
| 221 | 0010 0011 | 3412.13 | 3463.0 | 0.5 | 0.6 | 6.1 | 3467.6 | -4.6 |
| 222 | 0010 0010 | 3428.75 | 3489.3 | -3.3 | 0.0 | 26.3 | 3483.5 | 5.8 |
| 223 | 0010 0001 | 3444.38 | 3503.9 | -0.6 | -0.5 | 14.6 | 3499.3 | 4.6 |
| 224 | 0010 0000 | 3460.00 | 3516.5 | 0.0 | -0.6 | 12.6 | 3515.2 | 1.3 |
| 225 | 0001 1111 | 3475.63 | 3529.6 | 0.5 | 0.7 | 13.1 | 3531.1 | -1.4 |
| 226 | 0001 1110 | 3491.25 | 3538.7 | -0.1 | 0.4 | 9.0 | 3547.0 | -8.3 |
| 227 | 0001 1101 | 3506.88 | 3565.8 | -0.8 | -0.8 | 27.1 | 3562.8 | 3.0 |
| 228 | 0001 1100 | 3522.50 | 3579.2 | -0.6 | -0.5 | 13.4 | 3578.7 | 0.5 |
| 229 | 0001 1011 | 3538.13 | 3591.8 | 0.6 | 0.1 | 12.6 | 3594.6 | -2.8 |
| 230 | 0001 1010 | 3553.75 | 3612.9 | 0.5 | 0.6 | 21.1 | 3610.4 | 2.4 |
| 231 | 0001 1001 | 3569.38 | 3634.4 | -0.7 | 0.1 | 21.6 | 3626.3 | 8.1 |
| 232 | 0001 1000 | 3585.00 | 3637.5 | -0.5 | -0.6 | 3.1 | 3642.2 | -4.7 |
| 233 | 0001 0111 | 3600.63 | 3653.3 | -0.1 | -0.5 | 15.7 | 3658.1 | -4.8 |
| 234 | 0001 0110 | 3616.25 | 3667.2 | 0.0 | 0.6 | 15.9 | 3673.9 | -4.7 |
| 235 | 0001 0101 | 3631.88 | 3694.2 | -0.0 | 0.0 | 21.9 | 3689.8 | 4.3 |
| 236 | 0001 0100 | 3647.50 | 3710.2 | -0.5 | 0.0 | 16.1 | 3705.7 | 4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 546

1981/11/30 14:45:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=10)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3720.7 | -0.6 | -0.5 | 10.4 | 3721.6 | -0.9 |
| 238 | 0001 0010 | 3678.75 | 3744.7 | -0.1 | -0.6 | 24.0 | 3737.4 | 7.2 |
| 239 | 0001 0001 | 3694.38 | 3760.5 | 0.5 | 0.6 | 15.8 | 3753.3 | 7.2 |
| 240 | 0001 0000 | 3710.00 | 3777.7 | -0.1 | 0.5 | 17.2 | 3769.2 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3786.4 | -0.8 | -0.4 | 8.7 | 3785.1 | 1.4 |
| 242 | 0000 1110 | 3741.25 | 3795.3 | -0.5 | -0.5 | 8.8 | 3800.9 | -5.6 |
| 243 | 0000 1101 | 3756.88 | 3821.3 | 0.6 | 0.0 | 26.0 | 3816.8 | 4.5 |
| 244 | 0000 1100 | 3772.50 | 3839.3 | -0.1 | -0.1 | 18.0 | 3832.7 | 6.6 |
| 245 | 0000 1011 | 3788.13 | 3848.1 | -0.1 | 0.6 | 8.8 | 3848.5 | -0.4 |
| 246 | 0000 1010 | 3800.75 | 3870.2 | -0.7 | -0.7 | 22.0 | 3864.4 | 5.7 |
| 247 | 0000 1001 | 3819.38 | 3890.8 | -0.3 | -0.6 | 20.6 | 3880.3 | 10.5 |
| 248 | 0000 1000 | 3835.00 | 3904.8 | 0.4 | 0.6 | 13.9 | 3896.2 | 8.6 |
| 249 | 0000 0111 | 3850.63 | 3909.2 | 0.6 | 0.7 | 4.4 | 3912.0 | -2.9 |
| 250 | 0000 0110 | 3866.25 | 3926.3 | -0.6 | 0.0 | 17.1 | 3927.9 | -1.6 |
| 251 | 0000 0101 | 3881.88 | 3951.3 | -0.9 | -0.7 | 25.0 | 3943.8 | 7.5 |
| 252 | 0000 0100 | 3897.50 | 3971.0 | -0.1 | -0.7 | 19.7 | 3959.7 | 11.4 |
| 253 | 0000 0011 | 3913.13 | 3976.5 | 0.7 | 0.8 | 5.5 | 3975.5 | 1.0 |
| 254 | 0000 0010 | 3928.75 | 4002.1 | -0.2 | 0.5 | 25.5 | 3991.4 | 10.7 |
| 255 | 0000 0001 | 3944.38 | 4017.7 | -0.7 | -0.4 | 15.6 | 4007.3 | 10.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 547
 1981/11/30 14:52:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)
S U M M A R Y



CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: Y =15.863X -39.3MV

DEVIATION OF SLOPE FROM IDEAL IS: 1.522%
 OFFSET IS:-39.3MV
 COEFFICIENT OF DETERMINATION IS: R**2= .99998330
 ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR = 4.788MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| | | | | | |
|---|-------------|----------|---------|-------------|--------------------|
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 26.3MV | 227 | 15.942MV | 1.7MV | 200 | 5.595MV |
| LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 2.6MV | 1 | -0.084MV | -5.6MV | 177 | .701MV |
| UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 3.0MV | 1 | 0.046MV | -1.4MV | 143 | .600MV |

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 548

1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



62/30/81

| THRESHOLD
NUMBER | A/D
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|------|------|---------|-------|------|------|-------|------|
| 1 | 1111 | 1111 | -24.375 | -30.4 | 2.6 | 3.0 | -23.4 | -7.0 |
| 2 | 1111 | 1110 | -8.750 | -14.9 | -0.0 | -0.1 | -7.6 | -7.3 |
| 3 | 1111 | 1101 | 6.875 | 9.0 | -0.8 | -0.7 | 8.3 | 0.7 |
| 4 | 1111 | 1100 | 22.500 | 22.0 | -0.7 | -0.8 | 24.2 | -2.1 |
| 5 | 1111 | 1011 | 38.125 | 36.9 | 0.5 | 0.5 | 40.0 | -3.1 |
| 6 | 1111 | 1010 | 53.750 | 56.4 | -0.1 | -0.0 | 55.9 | 0.5 |
| 7 | 1111 | 1001 | 69.375 | 76.5 | -0.7 | 0.0 | 71.8 | 4.8 |
| 8 | 1111 | 1000 | 85.000 | 82.3 | -0.2 | -0.2 | 87.6 | -5.3 |
| 9 | 1111 | 0111 | 100.625 | 98.0 | -0.0 | -0.6 | 103.5 | -5.5 |
| 10 | 1111 | 0110 | 116.250 | 115.5 | -0.1 | -0.1 | 119.3 | -3.9 |
| 11 | 1111 | 0101 | 131.875 | 136.3 | 0.6 | 0.7 | 135.2 | 1.1 |
| 12 | 1111 | 0100 | 147.500 | 153.9 | -0.7 | -0.7 | 151.1 | 2.8 |
| 13 | 1111 | 0011 | 163.125 | 165.3 | -0.6 | -0.6 | 166.9 | -1.7 |
| 14 | 1111 | 0010 | 178.750 | 187.3 | -0.2 | 0.0 | 182.8 | 4.5 |
| 15 | 1111 | 0001 | 194.375 | 203.5 | 0.7 | 0.9 | 198.7 | 4.8 |
| 16 | 1111 | 0000 | 210.000 | 213.3 | -0.1 | 0.4 | 214.5 | -1.3 |
| 17 | 1110 | 1111 | 225.625 | 227.5 | -0.7 | -0.6 | 230.4 | -2.9 |
| 18 | 1110 | 1110 | 241.250 | 240.1 | 0.1 | 0.1 | 246.2 | -6.1 |
| 19 | 1110 | 1101 | 256.875 | 263.1 | 0.7 | 0.8 | 262.1 | 1.0 |
| 20 | 1110 | 1100 | 272.500 | 279.8 | 0.5 | 0.6 | 278.0 | 1.9 |
| 21 | 1110 | 1011 | 288.125 | 292.2 | -0.6 | 0.0 | 293.8 | -1.7 |
| 22 | 1110 | 1010 | 303.750 | 311.7 | 0.0 | 0.1 | 309.7 | 2.0 |
| 23 | 1110 | 1001 | 319.375 | 331.3 | -0.1 | -0.7 | 325.6 | 5.8 |
| 24 | 1110 | 1000 | 335.000 | 343.9 | 0.3 | 0.2 | 341.4 | 2.5 |
| 25 | 1110 | 0111 | 350.625 | 352.0 | 0.6 | 0.7 | 357.3 | -5.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 549

1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=1.1) L' 30 81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 370.3 | 0.0 | 0.2 | 18.3 | 373.1 | -2.9 |
| 27 | 1110 0101 | 381.875 | 391.7 | -0.8 | -0.6 | 21.4 | 389.0 | 2.7 |
| 28 | 1110 0100 | 397.500 | 411.1 | 0.7 | 0.1 | 19.4 | 404.9 | 6.2 |
| 29 | 1110 0011 | 413.125 | 419.2 | 0.5 | 0.6 | 8.1 | 420.7 | -1.6 |
| 30 | 1110 0010 | 428.750 | 442.1 | -0.0 | -0.1 | 22.9 | 436.6 | 5.5 |
| 31 | 1110 0001 | 444.375 | 458.6 | -0.9 | -0.7 | 16.5 | 452.5 | 6.1 |
| 32 | 1110 0000 | 460.000 | 465.8 | -0.3 | -0.3 | 7.2 | 468.3 | -2.6 |
| 33 | 1101 1111 | 475.625 | 482.6 | 0.7 | 1.0 | 16.8 | 484.2 | -1.6 |
| 34 | 1101 1110 | 491.250 | 495.1 | -0.1 | -0.0 | 12.5 | 500.0 | -5.0 |
| 35 | 1101 1101 | 506.875 | 519.7 | -0.8 | 0.0 | 24.6 | 515.9 | 3.8 |
| 36 | 1101 1100 | 522.500 | 532.3 | -0.4 | -0.3 | 12.6 | 531.8 | 0.5 |
| 37 | 1101 1011 | 538.125 | 547.7 | 0.0 | -0.5 | 15.4 | 547.6 | 0.1 |
| 38 | 1101 1010 | 553.750 | 566.2 | -0.1 | -0.0 | 18.4 | 563.5 | 2.7 |
| 39 | 1101 1001 | 569.375 | 586.3 | 0.3 | 0.7 | 20.1 | 579.4 | 6.9 |
| 40 | 1101 1000 | 585.000 | 594.3 | -0.1 | 0.0 | 8.0 | 595.2 | -0.9 |
| 41 | 1101 0111 | 600.625 | 608.0 | -0.6 | -0.6 | 13.6 | 611.1 | -3.1 |
| 42 | 1101 0110 | 616.250 | 625.0 | -0.2 | 0.0 | 17.0 | 626.9 | -2.0 |
| 43 | 1101 0101 | 631.875 | 646.4 | 0.7 | 0.8 | 21.4 | 642.8 | 3.5 |
| 44 | 1101 0100 | 647.500 | 662.6 | 0.0 | 1.2 | 16.2 | 658.7 | 3.9 |
| 45 | 1101 0011 | 663.125 | 675.0 | -0.6 | -0.6 | 12.4 | 674.5 | 0.4 |
| 46 | 1101 0010 | 678.750 | 696.3 | 0.2 | 0.2 | 21.4 | 690.4 | 5.9 |
| 47 | 1101 0001 | 694.375 | 712.5 | 0.7 | 0.8 | 16.2 | 706.3 | 6.3 |
| 48 | 1101 0000 | 710.000 | 727.1 | -0.1 | 0.1 | 14.6 | 722.1 | 5.0 |
| 49 | 1100 1111 | 725.625 | 737.0 | -0.8 | -0.0 | 9.9 | 738.0 | -0.9 |
| 50 | 1100 1110 | 741.250 | 748.9 | 0.0 | 0.1 | 11.8 | 753.9 | -5.0 |
| 51 | 1100 1101 | 756.875 | 773.2 | -0.0 | -0.7 | 24.3 | 769.7 | 3.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 550
 1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



NO. 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 787.8 | -1.3 | 0.2 | 14.6 | 785.6 | 2.2 |
| 53 | 1100 1011 | 798.125 | 800.4 | 0.5 | 0.5 | 12.6 | 801.4 | -1.0 |
| 54 | 1100 1010 | 803.750 | 820.1 | -0.1 | -0.1 | 19.7 | 817.3 | 2.8 |
| 55 | 1100 1001 | 819.375 | 840.1 | -0.7 | -0.7 | 20.0 | 833.2 | 6.9 |
| 56 | 1100 1000 | 835.000 | 854.9 | 0.5 | -0.1 | 14.9 | 849.0 | 5.9 |
| 57 | 1100 0111 | 850.625 | 860.2 | 0.7 | 0.7 | 5.3 | 864.9 | -4.7 |
| 58 | 1100 0110 | 866.250 | 878.0 | 0.0 | -0.1 | 17.7 | 880.8 | -2.8 |
| 59 | 1100 0101 | 881.875 | 899.8 | -0.8 | -0.7 | 21.8 | 896.6 | 3.2 |
| 60 | 1100 0100 | 897.500 | 919.7 | 0.1 | -0.7 | 19.9 | 912.5 | 7.2 |
| 61 | 1100 0011 | 913.125 | 926.9 | 0.5 | 0.5 | 7.2 | 928.3 | -1.4 |
| 62 | 1100 0010 | 928.750 | 949.2 | -0.1 | -0.0 | 22.3 | 944.2 | 5.0 |
| 63 | 1100 0001 | 944.375 | 965.3 | -0.7 | 0.2 | 16.1 | 960.1 | 5.2 |
| 64 | 1100 0000 | 960.000 | 977.5 | -0.7 | -0.6 | 12.2 | 975.9 | 1.5 |
| 65 | 1011 1111 | 975.625 | 992.8 | 0.0 | -0.5 | 15.3 | 991.8 | 1.0 |
| 66 | 1011 1110 | 991.250 | 1003.5 | 0.1 | 0.1 | 10.7 | 1007.7 | -4.1 |
| 67 | 1011 1101 | 1006.88 | 1027.5 | 0.7 | 0.7 | 24.0 | 1023.5 | 4.0 |
| 68 | 1011 1100 | 1022.50 | 1040.0 | -0.6 | -0.6 | 12.5 | 1039.4 | 0.6 |
| 69 | 1011 1011 | 1038.13 | 1056.0 | -0.6 | -0.5 | 16.0 | 1055.2 | 0.7 |
| 70 | 1011 1010 | 1053.75 | 1074.9 | 0.1 | 0.0 | 18.9 | 1071.1 | 3.8 |
| 71 | 1011 1001 | 1069.38 | 1094.8 | 0.6 | 0.7 | 19.9 | 1087.0 | 7.8 |
| 72 | 1011 1000 | 1085.00 | 1098.5 | 0.0 | 0.0 | 3.7 | 1102.8 | -4.3 |
| 73 | 1011 0111 | 1100.63 | 1115.7 | -0.6 | -0.5 | 17.1 | 1118.7 | -3.0 |
| 74 | 1011 0110 | 1116.25 | 1132.5 | 0.1 | 0.0 | 16.8 | 1134.6 | -2.1 |
| 75 | 1011 0101 | 1131.88 | 1154.3 | 0.7 | 0.7 | 21.8 | 1150.4 | 3.9 |
| 76 | 1011 0100 | 1147.50 | 1169.1 | 1.5 | 1.5 | 14.8 | 1166.3 | 2.2 |
| 77 | 1011 0011 | 1163.13 | 1182.3 | -0.5 | 0.1 | 13.2 | 1182.1 | 0.2 |
| 78 | 1011 0010 | 1178.75 | 1204.4 | -0.1 | -0.1 | 22.0 | 1198.0 | 6.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 551

1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



E 10 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1221.9 | -0.2 | -1.3 | 17.5 | 1213.9 | 8.1 |
| 80 | 1011 0000 | 1210.00 | 1233.5 | -0.2 | -0.3 | 11.5 | 1229.7 | 3.8 |
| 81 | 1010 1111 | 1225.63 | 1244.2 | 0.6 | 0.7 | 10.7 | 1245.6 | -1.4 |
| 82 | 1010 1110 | 1241.25 | 1255.8 | 0.0 | 0.1 | 11.6 | 1261.5 | -5.7 |
| 83 | 1010 1101 | 1256.88 | 1280.2 | -0.8 | -0.7 | 24.4 | 1277.3 | 2.9 |
| 84 | 1010 1100 | 1272.50 | 1295.3 | 0.6 | 0.1 | 15.1 | 1293.2 | 2.1 |
| 85 | 1010 1011 | 1288.13 | 1307.3 | 0.5 | 0.5 | 12.0 | 1309.0 | -1.7 |
| 86 | 1010 1010 | 1303.75 | 1327.2 | 0.1 | 0.1 | 19.8 | 1324.9 | 2.2 |
| 87 | 1010 1001 | 1319.38 | 1347.2 | -0.6 | -0.6 | 20.0 | 1340.8 | 6.4 |
| 88 | 1010 1000 | 1335.00 | 1358.9 | -0.0 | -0.1 | 11.7 | 1356.6 | 2.3 |
| 89 | 1010 0111 | 1350.63 | 1366.9 | 0.6 | 0.5 | 7.9 | 1372.5 | -5.6 |
| 90 | 1010 0110 | 1366.25 | 1384.5 | 0.0 | 0.0 | 17.6 | 1388.4 | -3.9 |
| 91 | 1010 0101 | 1381.88 | 1406.6 | -0.7 | 0.0 | 22.2 | 1404.2 | 2.4 |
| 92 | 1010 0100 | 1397.50 | 1425.2 | -0.4 | -0.4 | 18.5 | 1420.1 | 5.1 |
| 93 | 1010 0011 | 1413.13 | 1434.0 | 0.0 | -0.6 | 8.8 | 1435.9 | -2.0 |
| 94 | 1010 0010 | 1428.75 | 1456.9 | -0.1 | 0.0 | 22.9 | 1451.8 | 5.1 |
| 95 | 1010 0001 | 1444.38 | 1471.8 | 0.8 | 1.1 | 14.9 | 1467.7 | 4.2 |
| 96 | 1010 0000 | 1460.00 | 1484.6 | 0.3 | 0.3 | 12.7 | 1483.5 | 1.0 |
| 97 | 1001 1111 | 1475.63 | 1498.1 | -0.8 | -0.6 | 13.5 | 1499.4 | -1.3 |
| 98 | 1001 1110 | 1491.25 | 1513.0 | -5.0 | -0.1 | 14.9 | 1515.3 | -2.2 |
| 99 | 1001 1101 | 1506.88 | 1532.2 | 0.5 | 0.6 | 19.2 | 1531.1 | 1.1 |
| 100 | 1001 1100 | 1522.50 | 1544.5 | 0.0 | 0.5 | 12.3 | 1547.0 | -2.5 |
| 101 | 1001 1011 | 1538.13 | 1560.7 | -0.4 | -0.3 | 16.2 | 1562.9 | -2.2 |
| 102 | 1001 1010 | 1553.75 | 1579.4 | -0.1 | -0.3 | 18.7 | 1578.7 | 0.6 |
| 103 | 1001 1001 | 1569.38 | 1599.5 | 0.7 | 0.7 | 20.1 | 1594.6 | 4.9 |
| 104 | 1001 1000 | 1585.00 | 1605.9 | -0.0 | 0.2 | 6.3 | 1610.4 | -4.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 552

1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (EAND= 3, SENSOR=11)



11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1620.4 | -0.6 | 0.0 | 14.5 | 1626.3 | -5.9 |
| 106 | 1001 0110 | 1616.25 | 1636.7 | 0.0 | 0.0 | 16.3 | 1642.2 | -5.4 |
| 107 | 1001 0101 | 1631.88 | 1659.6 | -0.0 | -0.8 | 22.9 | 1658.0 | 1.6 |
| 108 | 1001 0100 | 1647.50 | 1673.7 | 0.6 | 0.6 | 14.0 | 1673.9 | -0.2 |
| 109 | 1001 0011 | 1663.13 | 1686.6 | -0.1 | 0.5 | 12.9 | 1689.8 | -3.2 |
| 110 | 1001 0010 | 1678.75 | 1708.5 | -0.1 | -0.1 | 21.9 | 1705.6 | 2.9 |
| 111 | 1001 0001 | 1694.38 | 1725.4 | -0.7 | -0.7 | 16.9 | 1721.5 | 3.9 |
| 112 | 1001 0000 | 1710.00 | 1742.1 | -0.1 | 0.0 | 16.7 | 1737.3 | 4.8 |
| 113 | 1000 1111 | 1725.63 | 1748.9 | 0.7 | 0.8 | 6.8 | 1753.2 | -4.3 |
| 114 | 1000 1110 | 1741.25 | 1759.9 | -0.1 | 0.0 | 11.0 | 1769.1 | -9.1 |
| 115 | 1000 1101 | 1756.88 | 1784.4 | -0.7 | -0.7 | 24.4 | 1784.9 | -0.5 |
| 116 | 1000 1100 | 1772.50 | 1799.6 | -0.2 | -0.7 | 15.2 | 1800.8 | -1.2 |
| 117 | 1000 1011 | 1788.13 | 1811.7 | 0.6 | 0.7 | 12.1 | 1816.7 | -4.9 |
| 118 | 1000 1010 | 1803.75 | 1830.8 | 0.4 | 0.5 | 19.1 | 1832.5 | -1.7 |
| 119 | 1000 1001 | 1819.38 | 1851.8 | -0.8 | -0.0 | 21.0 | 1848.4 | 3.4 |
| 120 | 1000 1000 | 1835.00 | 1866.7 | -0.5 | -0.5 | 14.9 | 1864.2 | 2.5 |
| 121 | 1000 0111 | 1850.63 | 1872.0 | -0.0 | 3.0 | 5.3 | 1880.1 | -8.1 |
| 122 | 1000 0110 | 1866.25 | 1888.4 | 0.0 | 0.0 | 16.3 | 1896.0 | -7.6 |
| 123 | 1000 0101 | 1881.88 | 1910.2 | 0.0 | 0.7 | 21.9 | 1911.8 | -1.6 |
| 124 | 1000 0100 | 1897.50 | 1929.7 | -0.6 | -0.5 | 19.4 | 1927.7 | 2.0 |
| 125 | 1000 0011 | 1913.13 | 1938.4 | -0.7 | -0.7 | 8.7 | 1943.6 | -5.1 |
| 126 | 1000 0010 | 1928.75 | 1960.9 | 0.0 | -0.1 | 22.5 | 1959.4 | 1.5 |
| 127 | 1000 0001 | 1944.38 | 1973.1 | 0.6 | 0.6 | 15.2 | 1975.3 | 0.8 |
| 128 | 1000 0000 | 1960.00 | 1993.9 | -0.1 | 0.5 | 17.8 | 1991.1 | 2.8 |
| 129 | 0111 1111 | 1975.63 | 2001.4 | -0.5 | -0.5 | 7.5 | 2007.0 | -5.6 |
| 130 | 0111 1110 | 1991.25 | 2017.2 | 0.0 | -0.1 | 15.8 | 2022.9 | -5.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 553

1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2040.7 | 0.8 | 0.9 | 23.4 | 2038.7 | 1.9 |
| 132 | 0111 1100 | 2022.50 | 2054.9 | 0.6 | 0.6 | 14.2 | 2054.6 | 0.3 |
| 133 | 0111 1011 | 2038.13 | 2068.4 | -0.6 | -0.1 | 13.5 | 2070.5 | -2.0 |
| 134 | 0111 1010 | 2053.75 | 2089.9 | -0.2 | -0.2 | 21.5 | 2086.3 | 3.6 |
| 135 | 0111 1001 | 2069.38 | 2108.8 | -0.0 | -0.7 | 18.9 | 2102.2 | 6.6 |
| 136 | 0111 1000 | 2085.00 | 2111.9 | 0.4 | 0.1 | 3.1 | 2118.0 | -6.1 |
| 137 | 0111 0111 | 2100.63 | 2127.4 | -0.0 | 0.6 | 15.5 | 2133.9 | -6.5 |
| 138 | 0111 0110 | 2116.25 | 2145.7 | 0.2 | 0.3 | 18.3 | 2149.8 | -4.0 |
| 139 | 0111 0101 | 2131.88 | 2168.2 | -0.7 | -0.6 | 22.5 | 2165.6 | 2.6 |
| 140 | 0111 0100 | 2147.50 | 2184.8 | 0.6 | -0.1 | 16.6 | 2181.5 | 3.3 |
| 141 | 0111 0011 | 2163.13 | 2194.3 | 0.5 | 0.6 | 9.5 | 2197.4 | -3.1 |
| 142 | 0111 0010 | 2178.75 | 2219.1 | 0.1 | 0.2 | 24.8 | 2213.2 | 5.9 |
| 143 | 0111 0001 | 2194.38 | 2235.7 | -1.3 | -1.4 | 16.6 | 2229.1 | 6.6 |
| 144 | 0111 0000 | 2210.00 | 2245.1 | 0.0 | -0.7 | 9.4 | 2244.9 | 0.1 |
| 145 | 0110 1111 | 2225.63 | 2252.8 | 0.6 | 0.6 | 7.7 | 2260.8 | -8.0 |
| 146 | 0110 1110 | 2241.25 | 2269.5 | 0.0 | 0.0 | 16.6 | 2276.7 | -7.2 |
| 147 | 0110 1101 | 2256.88 | 2293.5 | -0.8 | -0.0 | 24.1 | 2292.5 | 1.0 |
| 148 | 0110 1100 | 2272.50 | 2311.7 | -0.7 | -0.7 | 18.1 | 2308.4 | 3.3 |
| 149 | 0110 1011 | 2288.13 | 2320.2 | -0.0 | -0.5 | 8.5 | 2324.3 | -4.1 |
| 150 | 0110 1010 | 2303.75 | 2342.0 | 0.1 | 0.1 | 21.8 | 2340.1 | 1.8 |
| 151 | 0110 1001 | 2319.38 | 2359.9 | -0.0 | 0.7 | 18.0 | 2356.0 | 4.0 |
| 152 | 0110 1000 | 2335.00 | 2374.1 | -0.1 | -0.1 | 14.1 | 2371.8 | 2.2 |
| 153 | 0110 0111 | 2350.63 | 2379.6 | -0.2 | -0.5 | 5.5 | 2387.7 | -8.1 |
| 154 | 0110 0110 | 2366.25 | 2398.1 | -0.1 | -0.1 | 18.5 | 2403.6 | -5.4 |
| 155 | 0110 0101 | 2381.88 | 2419.4 | 0.2 | 0.2 | 21.3 | 2419.4 | -0.0 |
| 156 | 0110 0100 | 2397.50 | 2440.6 | -0.1 | 0.5 | 21.2 | 2435.3 | 5.3 |
| 157 | 0110 0011 | 2413.13 | 2446.5 | -0.6 | -0.6 | 5.8 | 2451.2 | -4.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 554
 1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2469.3 | 0.1 | 2.4 | 23.4 | 2467.0 | 2.8 |
| 159 | 0110 0001 | 2444.38 | 2485.9 | 1.4 | 1.4 | 16.0 | 2482.9 | 3.0 |
| 160 | 0110 0000 | 2460.00 | 2494.6 | 0.3 | 0.3 | 8.7 | 2498.8 | -4.2 |
| 161 | 0101 1111 | 2475.63 | 2506.6 | -0.6 | 0.0 | 12.0 | 2514.6 | -8.0 |
| 162 | 0101 1110 | 2491.25 | 2521.9 | -0.2 | -0.2 | 15.3 | 2530.5 | -8.6 |
| 163 | 0101 1101 | 2506.88 | 2546.6 | 0.1 | -0.6 | 24.7 | 2546.3 | 0.2 |
| 164 | 0101 1100 | 2522.50 | 2560.5 | 0.5 | 0.6 | 13.9 | 2562.2 | -1.7 |
| 165 | 0101 1011 | 2538.13 | 2573.0 | -0.1 | 0.1 | 12.5 | 2578.1 | -5.1 |
| 166 | 0101 1010 | 2553.75 | 2594.7 | -0.4 | -0.3 | 21.7 | 2593.9 | 0.8 |
| 167 | 0101 1001 | 2569.38 | 2614.1 | -0.8 | -0.8 | 19.3 | 2609.8 | 4.3 |
| 168 | 0101 1000 | 2585.00 | 2619.8 | 0.0 | -0.1 | 5.8 | 2625.7 | -5.8 |
| 169 | 0101 0111 | 2600.63 | 2632.5 | 0.5 | 0.6 | 12.6 | 2641.5 | -9.0 |
| 170 | 0101 0110 | 2616.25 | 2650.6 | 0.0 | 0.0 | 18.2 | 2657.4 | -6.7 |
| 171 | 0101 0101 | 2631.88 | 2673.6 | -0.6 | -0.7 | 22.9 | 2673.2 | 0.3 |
| 172 | 0101 0100 | 2647.50 | 2690.6 | 0.0 | -0.4 | 17.0 | 2689.1 | 1.5 |
| 173 | 0101 0011 | 2663.13 | 2699.2 | 0.6 | 0.6 | 8.6 | 2705.0 | -5.7 |
| 174 | 0101 0010 | 2678.75 | 2723.6 | 0.3 | 0.2 | 24.4 | 2720.8 | 2.8 |
| 175 | 0101 0001 | 2694.38 | 2740.8 | -0.8 | -0.1 | 17.2 | 2736.7 | 4.1 |
| 176 | 0101 0000 | 2710.00 | 2754.3 | -0.1 | -0.0 | 13.5 | 2752.6 | 1.8 |
| 177 | 0100 1111 | 2725.63 | 2764.4 | -5.6 | -0.7 | 10.1 | 2768.4 | -4.0 |
| 178 | 0100 1110 | 2741.25 | 2774.0 | 0.1 | 0.1 | 9.5 | 2784.3 | -10.3 |
| 179 | 0100 1101 | 2756.88 | 2798.1 | -0.1 | 0.6 | 24.1 | 2800.1 | -2.1 |
| 180 | 0100 1100 | 2772.50 | 2817.1 | -0.4 | -0.3 | 19.0 | 2816.0 | 1.1 |
| 181 | 0100 1011 | 2788.13 | 2825.4 | -0.5 | -0.5 | 8.3 | 2831.9 | -6.5 |
| 182 | 0100 1010 | 2803.75 | 2846.9 | 0.0 | 0.0 | 21.5 | 2847.7 | -0.8 |
| 183 | 0100 1001 | 2819.38 | 2865.5 | 0.6 | 0.6 | 18.6 | 2863.6 | 1.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 555

1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



11 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2882.0 | -0.1 | 0.1 | 16.4 | 2879.5 | 2.5 |
| 185 | 0100 0111 | 2850.63 | 2885.1 | -0.7 | -0.6 | 3.2 | 2895.3 | -10.2 |
| 186 | 0100 0110 | 2866.25 | 2902.8 | 0.0 | 0.0 | 17.7 | 2911.2 | -8.4 |
| 187 | 0100 0101 | 2881.88 | 2925.0 | 0.7 | 0.7 | 22.2 | 2927.0 | -2.1 |
| 188 | 0100 0100 | 2897.50 | 2946.2 | 0.6 | 0.6 | 21.2 | 2942.9 | 3.3 |
| 189 | 0100 0011 | 2913.13 | 2951.9 | -0.6 | -0.0 | 5.8 | 2958.8 | -6.8 |
| 190 | 0100 0010 | 2928.75 | 2977.4 | -0.2 | -0.2 | 25.4 | 2974.6 | 2.7 |
| 191 | 0100 0001 | 2944.38 | 2991.7 | 0.0 | 0.0 | 14.3 | 2990.5 | 1.2 |
| 192 | 0100 0000 | 2960.00 | 3007.5 | 1.1 | 1.1 | 15.7 | 3006.4 | 1.1 |
| 193 | 0011 1111 | 2975.63 | 3013.2 | -0.1 | 0.6 | 5.7 | 3022.2 | -9.0 |
| 194 | 0011 1110 | 2991.25 | 3028.9 | 0.0 | 0.1 | 15.7 | 3038.1 | -9.2 |
| 195 | 0011 1101 | 3006.88 | 3054.3 | -0.8 | -0.6 | 25.4 | 3053.9 | 0.4 |
| 196 | 0011 1100 | 3022.50 | 3066.9 | 0.5 | -0.0 | 12.5 | 3069.8 | -2.9 |
| 197 | 0011 1011 | 3038.13 | 3080.4 | 0.5 | 0.9 | 13.5 | 3085.7 | -5.3 |
| 198 | 0011 1010 | 3053.75 | 3102.2 | -0.0 | 0.4 | 21.8 | 3101.5 | 0.7 |
| 199 | 0011 1001 | 3069.38 | 3122.3 | -0.8 | -0.9 | 20.1 | 3117.4 | 4.9 |
| 200 | 0011 1000 | 3085.00 | 3123.9 | 0.1 | -0.3 | 1.7 | 3133.3 | -9.3 |
| 201 | 0011 0111 | 3100.63 | 3140.4 | 0.4 | 0.5 | 16.4 | 3149.1 | -8.8 |
| 202 | 0011 0110 | 3116.25 | 3158.7 | -0.0 | 0.1 | 18.4 | 3165.0 | -6.2 |
| 203 | 0011 0101 | 3131.88 | 3182.0 | -0.8 | 0.0 | 23.3 | 3180.8 | 1.2 |
| 204 | 0011 0100 | 3147.50 | 3197.7 | -0.5 | -0.5 | 15.7 | 3196.7 | 1.0 |
| 205 | 0011 0011 | 3163.13 | 3208.2 | 0.0 | -0.6 | 10.5 | 3212.6 | -4.4 |
| 206 | 0011 0010 | 3178.75 | 3232.4 | 0.1 | 0.1 | 24.2 | 3228.4 | 4.0 |
| 207 | 0011 0001 | 3194.38 | 3249.2 | -0.1 | 0.6 | 16.8 | 3244.3 | 4.9 |
| 208 | 0011 0000 | 3210.00 | 3261.8 | 0.0 | 0.0 | 12.6 | 3260.2 | 1.6 |
| 209 | 0010 1111 | 3225.63 | 3267.5 | -0.6 | -0.6 | 5.7 | 3276.0 | -8.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 556

1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3283.0 | -0.2 | 0.0 | 15.6 | 3291.9 | -8.8 |
| 211 | 0010 1101 | 3256.88 | 3307.2 | 1.0 | 1.1 | 24.1 | 3307.2 | -0.6 |
| 212 | 0010 1100 | 3272.50 | 3325.1 | -0.1 | 0.5 | 18.0 | 3323.6 | 1.5 |
| 213 | 0010 1011 | 3288.13 | 3334.9 | -0.6 | -0.6 | 9.7 | 3339.5 | -4.6 |
| 214 | 0010 1010 | 3303.75 | 3357.2 | -0.1 | -0.4 | 22.3 | 3355.3 | 1.8 |
| 215 | 0010 1001 | 3319.38 | 3375.6 | 0.7 | 0.8 | 18.4 | 3371.2 | 4.4 |
| 216 | 0010 1000 | 3335.00 | 3388.9 | -0.1 | 0.2 | 13.3 | 3387.1 | 1.8 |
| 217 | 0010 0111 | 3350.63 | 3395.0 | -0.6 | 0.0 | 6.0 | 3402.9 | -0.0 |
| 218 | 0010 0110 | 3366.25 | 3413.1 | -0.1 | 0.0 | 18.1 | 3418.8 | -5.7 |
| 219 | 0010 0101 | 3381.88 | 3436.0 | 0.0 | -0.3 | 22.9 | 3434.7 | 1.3 |
| 220 | 0010 0100 | 3397.50 | 3455.7 | 0.7 | 0.7 | 19.7 | 3450.5 | 5.1 |
| 221 | 0010 0011 | 3413.13 | 3462.0 | -0.0 | 0.4 | 6.3 | 3466.4 | -4.4 |
| 222 | 0010 0010 | 3428.75 | 3488.2 | -0.4 | -0.3 | 26.2 | 3482.2 | 5.9 |
| 223 | 0010 0001 | 3444.38 | 3504.5 | -0.7 | -0.7 | 16.3 | 3498.1 | 6.4 |
| 224 | 0010 0000 | 3460.00 | 3515.1 | 0.7 | 0.1 | 10.6 | 3514.0 | 1.2 |
| 225 | 0001 1111 | 3475.63 | 3522.9 | 0.6 | 0.6 | 7.8 | 3529.8 | -6.9 |
| 226 | 0001 1110 | 3491.25 | 3538.2 | -0.1 | 0.3 | 15.3 | 3545.7 | -7.5 |
| 227 | 0001 1101 | 3506.88 | 3564.5 | -0.7 | -0.6 | 26.3 | 3561.6 | 3.0 |
| 228 | 0001 1100 | 3522.50 | 3577.9 | -0.0 | -0.6 | 13.3 | 3577.4 | 0.5 |
| 229 | 0001 1011 | 3538.13 | 3590.8 | 0.4 | 0.6 | 12.9 | 3591.3 | -7.5 |
| 230 | 0001 1010 | 3553.75 | 3612.1 | 0.3 | 0.5 | 21.4 | 3609.1 | 3.0 |
| 231 | 0001 1001 | 3569.38 | 3632.9 | -0.8 | 0.0 | 20.7 | 3625.0 | 7.9 |
| 232 | 0001 1000 | 3585.00 | 3637.4 | -0.4 | -0.4 | 4.5 | 3640.9 | -3.5 |
| 233 | 0001 0111 | 3600.63 | 3651.8 | -0.1 | -0.7 | 14.4 | 3656.7 | -4.9 |
| 234 | 0001 0110 | 3616.25 | 3669.1 | 0.1 | 0.1 | 17.2 | 3672.6 | -3.5 |
| 235 | 0001 0101 | 3631.88 | 3692.5 | -0.1 | 0.8 | 23.4 | 3688.5 | 4.0 |
| 236 | 0001 0100 | 3647.50 | 3709.1 | -0.6 | -0.6 | 16.6 | 3704.3 | 4.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 557
 1981/11/30 14:52:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=11)



1 20 31

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3719.6 | -0.6 | -0.5 | 10.5 | 3720.2 | -0.6 |
| 238 | 0001 0010 | 3678.75 | 3743.6 | 0.1 | 0.1 | 24.1 | 3736.0 | 7.6 |
| 239 | 0001 0001 | 3694.38 | 3761.2 | 0.7 | 0.8 | 17.5 | 3751.9 | 9.3 |
| 240 | 0001 0000 | 3710.00 | 3777.8 | -0.1 | -0.1 | 16.6 | 3767.8 | 10.1 |
| 241 | 0000 1111 | 3725.63 | 3779.6 | -0.5 | -0.5 | 1.8 | 3783.6 | -4.0 |
| 242 | 0000 1110 | 3741.25 | 3794.6 | -0.1 | -0.1 | 15.0 | 3799.5 | -4.9 |
| 243 | 0000 1101 | 3756.88 | 3820.0 | 0.5 | 0.7 | 25.4 | 3815.4 | 4.6 |
| 244 | 0000 1100 | 3772.50 | 3837.6 | 0.5 | 0.6 | 17.6 | 3831.2 | 6.4 |
| 245 | 0000 1011 | 3788.13 | 3847.6 | -0.9 | 0.0 | 10.0 | 3847.1 | 0.5 |
| 246 | 0000 1010 | 3803.75 | 3869.2 | -0.6 | -0.4 | 21.7 | 3862.9 | 6.3 |
| 247 | 0000 1001 | 3819.38 | 3888.5 | 0.6 | 0.0 | 19.3 | 3878.8 | 9.7 |
| 248 | 0000 1000 | 3835.00 | 3903.8 | -0.1 | 0.0 | 15.3 | 3894.7 | 9.1 |
| 249 | 0000 0111 | 3850.63 | 3907.6 | -0.1 | 0.5 | 3.8 | 3910.5 | -2.9 |
| 250 | 0000 0110 | 3866.25 | 3925.6 | -0.3 | 0.0 | 18.0 | 3926.4 | -0.8 |
| 251 | 0000 0101 | 3881.88 | 3949.7 | -0.9 | -0.7 | 24.1 | 3942.3 | 7.5 |
| 252 | 0000 0100 | 3897.50 | 3969.3 | 0.3 | 0.1 | 19.5 | 3958.1 | 11.2 |
| 253 | 0000 0011 | 3913.13 | 3975.7 | 0.4 | 0.5 | 6.4 | 3974.0 | 1.7 |
| 254 | 0000 0010 | 3928.75 | 4001.4 | -0.7 | -0.7 | 25.7 | 3989.8 | 11.5 |
| 255 | 0000 0001 | 3944.38 | 4018.7 | -0.7 | -0.7 | 17.3 | 4005.7 | 13.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 558

1981/11/30 14:58:43 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12) NOV 30 '81
S U M M A R Y



CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = -15.874X - 40.1MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.594%

OFFSET IS: -40.1MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998400$

ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.819MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.7MV | 243 | 15.940MV | 2.1MV | 200 | 5.661MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.1MV | 244 | -0.052MV | -1.9MV | 13 | .543MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.8MV | 115 | -0.023MV | -1.1MV | 94 | .531MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 559

1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12)



11 30 '81

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -30.6 | -0.8 | -0.4 | | -24.2 | -6.4 |
| 2 | 1111 1110 | -8.750 | -16.7 | 0.4 | 0.5 | 13.8 | -8.3 | -8.4 |
| 3 | 1111 1101 | 6.875 | 7.6 | 0.6 | 0.7 | 24.3 | 7.5 | 0.1 |
| 4 | 1111 1100 | 22.500 | 20.9 | -0.6 | 0.0 | 13.3 | 23.4 | -2.5 |
| 5 | 1111 1011 | 38.125 | 36.9 | -0.7 | -0.6 | 16.0 | 39.3 | -2.4 |
| 6 | 1111 1010 | 53.750 | 55.0 | 0.4 | 0.0 | 18.1 | 55.2 | -0.2 |
| 7 | 1111 1001 | 69.375 | 75.1 | 0.4 | 0.4 | 20.1 | 71.0 | 4.1 |
| 8 | 1111 1000 | 95.000 | 80.8 | -0.0 | 0.6 | 5.7 | 86.9 | -6.1 |
| 9 | 1111 0111 | 100.625 | 97.5 | -0.6 | -0.5 | 16.7 | 102.8 | -5.3 |
| 10 | 1111 0110 | 116.250 | 114.3 | -0.6 | -0.5 | 16.8 | 118.6 | -4.3 |
| 11 | 1111 0101 | 131.875 | 135.8 | 0.5 | -0.0 | 21.5 | 134.5 | 1.3 |
| 12 | 1111 0100 | 147.500 | 151.8 | 0.5 | 0.5 | 16.0 | 150.4 | 1.4 |
| 13 | 1111 0011 | 163.125 | 164.8 | -1.9 | -0.0 | 13.0 | 166.3 | -1.5 |
| 14 | 1111 0010 | 178.750 | 186.4 | -0.7 | -0.6 | 21.6 | 182.1 | 4.3 |
| 15 | 1111 0001 | 194.375 | 203.3 | -0.1 | -0.6 | 16.9 | 198.0 | 5.3 |
| 16 | 1111 0000 | 210.000 | 212.3 | 0.5 | 0.6 | 8.9 | 213.9 | -1.6 |
| 17 | 1110 1111 | 225.625 | 224.2 | 0.5 | 0.6 | 11.9 | 229.8 | -5.5 |
| 18 | 1110 1110 | 241.250 | 239.3 | -0.5 | 0.0 | 15.1 | 245.6 | -6.3 |
| 19 | 1110 1101 | 256.875 | 263.5 | -0.8 | -0.7 | 24.2 | 261.5 | 2.0 |
| 20 | 1110 1100 | 272.500 | 278.3 | 0.3 | -0.1 | 14.8 | 277.4 | 1.0 |
| 21 | 1110 1011 | 288.125 | 291.4 | 0.5 | 0.5 | 13.1 | 293.3 | -1.8 |
| 22 | 1110 1010 | 303.750 | 310.7 | -0.1 | 0.7 | 19.2 | 309.1 | 1.6 |
| 23 | 1110 1001 | 319.375 | 330.8 | -0.6 | -0.5 | 20.1 | 325.0 | 5.8 |
| 24 | 1110 1000 | 335.000 | 343.5 | -0.5 | -0.5 | 12.8 | 340.9 | 2.7 |
| 25 | 1110 0111 | 350.625 | 351.9 | 0.5 | 0.0 | 8.4 | 356.8 | -4.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 560

1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=12)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|---------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 369.0 | 0.5 | 0.5 | 17.1 | 372.6 | -3.6 |
| 27 | 1110 0101 | 381.875 | 391.5 | -0.8 | -0.0 | 22.5 | 388.5 | 3.0 |
| 28 | 1110 0100 | 397.500 | 411.0 | -0.7 | -0.6 | 19.5 | 404.4 | 6.6 |
| 29 | 1110 0011 | 413.125 | 419.6 | -0.0 | -0.5 | 8.6 | 420.3 | -0.6 |
| 30 | 1110 0010 | 428.750 | 440.9 | 0.5 | 0.5 | 21.3 | 436.1 | 4.8 |
| 31 | 1110 0001 | 444.375 | 457.4 | 0.7 | 0.7 | 16.5 | 452.0 | 5.4 |
| 32 | 1110 0000 | 460.000 | 465.1 | -0.5 | 0.0 | 7.6 | 467.9 | -2.8 |
| 33 | 1101 1111 | 475.625 | 480.8 | -0.6 | -0.5 | 15.7 | 483.7 | -3.0 |
| 34 | 1101 1110 | 491.250 | 493.9 | 0.5 | 0.0 | 13.1 | 499.6 | -5.7 |
| 35 | 1101 1101 | 506.875 | 518.9 | 0.7 | 0.8 | 25.0 | 515.5 | 3.4 |
| 36 | 1101 1100 | 522.500 | 531.1 | -0.1 | 0.5 | 12.2 | 531.4 | -0.3 |
| 37 | 1101 1011 | 538.125 | 547.8 | -0.6 | -0.5 | 16.7 | 547.2 | 0.6 |
| 38 | 1101 1010 | 553.750 | 565.9 | -0.5 | -0.5 | 18.1 | 563.1 | 2.8 |
| 39 | 1101 1001 | 569.375 | 586.2 | 0.5 | 0.0 | 20.3 | 579.0 | 7.2 |
| 40 | 1101 1000 | 585.000 | 593.7 | 0.4 | 0.4 | 7.5 | 594.9 | -1.1 |
| 41 | 1101 0111 | 600.625 | 608.2 | -0.6 | 0.0 | 14.5 | 610.7 | -2.5 |
| 42 | 1101 0110 | 616.250 | 624.3 | -0.5 | -0.5 | 16.1 | 626.6 | -2.3 |
| 43 | 1101 0101 | 631.875 | 647.2 | -0.0 | -0.6 | 22.8 | 642.5 | 4.7 |
| 44 | 1101 0100 | 647.500 | 662.0 | 0.5 | 0.6 | 14.8 | 658.4 | 3.6 |
| 45 | 1101 0011 | 663.125 | 674.6 | 0.4 | 0.5 | 12.6 | 674.2 | 0.4 |
| 46 | 1101 0010 | 678.750 | 696.4 | -0.7 | -0.0 | 21.8 | 690.1 | 6.3 |
| 47 | 1101 0001 | 694.375 | 713.4 | -0.9 | -0.7 | 17.0 | 706.0 | 7.4 |
| 48 | 1101 0000 | 710.000 | 726.3 | 0.5 | 0.0 | 12.9 | 721.9 | 4.4 |
| 49 | 1100 1111 | 725.625 | 734.2 | 0.5 | 0.6 | 7.9 | 737.7 | -3.5 |
| 50 | 1100 1110 | 741.250 | 748.0 | -0.0 | 0.6 | 13.8 | 753.6 | -5.6 |
| 51 | 1100 1101 | 753.875 | 773.4 | -0.9 | -0.8 | 25.4 | 769.5 | 3.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 561
 1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 787.5 | -0.6 | -0.5 | 14.1 | 785.4 | 2.1 |
| 53 | 1100 1011 | 788.125 | 800.9 | 0.5 | -0.0 | 13.4 | 801.2 | -0.3 |
| 54 | 1100 1010 | 803.750 | 819.7 | 0.5 | 0.5 | 18.7 | 817.1 | 2.6 |
| 55 | 1100 1001 | 819.375 | 840.1 | -0.8 | 0.1 | 20.4 | 833.0 | 7.1 |
| 56 | 1100 1000 | 835.000 | 855.5 | -0.9 | -0.9 | 15.4 | 848.9 | 6.6 |
| 57 | 1100 0111 | 850.625 | 861.5 | 0.0 | -0.6 | 6.0 | 864.7 | -3.3 |
| 58 | 1100 0110 | 866.250 | 877.2 | 0.5 | 0.5 | 15.7 | 880.6 | -3.4 |
| 59 | 1100 0101 | 881.875 | 899.5 | 0.6 | 0.7 | 22.3 | 896.5 | 3.0 |
| 60 | 1100 0100 | 897.500 | 919.7 | -0.6 | 0.1 | 20.2 | 912.3 | 7.3 |
| 61 | 1100 0011 | 913.125 | 928.0 | -0.5 | -0.5 | 8.3 | 928.2 | -0.3 |
| 62 | 1100 0010 | 928.750 | 948.6 | 0.5 | -0.1 | 20.6 | 944.1 | 4.5 |
| 63 | 1100 0001 | 944.375 | 964.9 | 0.7 | 0.7 | 16.3 | 960.0 | 5.0 |
| 64 | 1100 0000 | 960.000 | 977.1 | -0.1 | 0.6 | 12.1 | 975.8 | 1.3 |
| 65 | 1011 1111 | 975.625 | 989.9 | -0.6 | -0.6 | 12.8 | 991.7 | -1.8 |
| 66 | 1011 1110 | 991.250 | 1003.7 | -0.6 | -0.6 | 13.8 | 1007.6 | -3.9 |
| 67 | 1011 1101 | 1006.88 | 1028.2 | 0.7 | 0.0 | 24.5 | 1023.5 | 4.7 |
| 68 | 1011 1100 | 1022.50 | 1039.3 | 0.8 | 0.8 | 11.1 | 1039.3 | -0.1 |
| 69 | 1011 1011 | 1038.13 | 1056.5 | -0.4 | -0.0 | 17.2 | 1055.2 | 1.3 |
| 70 | 1011 1010 | 1053.75 | 1075.0 | -0.5 | -0.5 | 18.5 | 1071.1 | 3.9 |
| 71 | 1011 1001 | 1069.38 | 1096.1 | -0.1 | -0.6 | 21.1 | 1087.0 | 9.1 |
| 72 | 1011 1000 | 1085.00 | 1098.5 | 0.5 | 0.5 | 2.4 | 1102.8 | -4.3 |
| 73 | 1011 0111 | 1100.63 | 1115.9 | 0.5 | 0.5 | 17.4 | 1118.7 | -2.8 |
| 74 | 1011 0110 | 1116.25 | 1132.6 | -0.5 | -0.0 | 16.6 | 1134.6 | -2.0 |
| 75 | 1011 0101 | 1131.88 | 1155.8 | -0.7 | -0.8 | 23.2 | 1150.5 | 5.3 |
| 76 | 1011 0100 | 1147.50 | 1170.0 | 0.0 | -0.7 | 14.2 | 1166.3 | 3.7 |
| 77 | 1011 0011 | 1163.13 | 1182.4 | 0.5 | 0.5 | 12.4 | 1182.2 | 3.2 |
| 78 | 1011 0010 | 1178.75 | 1204.4 | 0.0 | 0.5 | 22.0 | 1198.1 | 6.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 562

1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (RAND= 3, SENSOR=12) NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 79 | 1011 0001 | 1194.38 | 1221.8 -0.7 -0.7 | 17.4 | 1214.0 7.8 |
| 80 | 1011 0000 | 1210.00 | 1233.7 -0.6 -0.6 | 11.9 | 1229.8 3.9 |
| 81 | 1010 1111 | 1225.63 | 1245.1 0.6 -0.0 | 11.3 | 1245.7 -0.6 |
| 82 | 1010 1110 | 1241.25 | 1255.5 0.5 0.4 | 10.4 | 1261.6 -6.1 |
| 83 | 1010 1101 | 1256.88 | 1280.3 0.0 0.7 | 24.8 | 1277.5 2.9 |
| 84 | 1010 1100 | 1272.50 | 1294.9 -0.6 -0.6 | 14.6 | 1293.3 1.6 |
| 85 | 1010 1011 | 1288.13 | 1308.5 -0.0 -0.5 | 13.6 | 1309.2 -0.7 |
| 86 | 1010 1010 | 1303.75 | 1327.1 0.5 0.5 | 18.6 | 1325.1 2.1 |
| 87 | 1010 1001 | 1319.38 | 1347.5 0.6 0.6 | 20.3 | 1340.9 6.5 |
| 88 | 1010 1000 | 1335.00 | 1359.6 -0.6 -0.0 | 12.1 | 1356.8 2.7 |
| 89 | 1010 0111 | 1350.63 | 1368.3 -0.5 -0.6 | 8.7 | 1372.7 -4.4 |
| 90 | 1010 0110 | 1366.25 | 1384.7 0.0 -0.5 | 16.4 | 1388.6 -3.9 |
| 91 | 1010 0101 | 1381.88 | 1406.9 0.7 0.6 | 22.2 | 1404.4 2.5 |
| 92 | 1010 0100 | 1397.50 | 1425.0 -0.1 0.6 | 18.1 | 1420.3 4.7 |
| 93 | 1010 0011 | 1413.13 | 1434.7 -0.5 -0.5 | 9.7 | 1436.7 -1.5 |
| 94 | 1010 0010 | 1428.75 | 1456.9 -1.1 -1.1 | 22.2 | 1452.1 4.8 |
| 95 | 1010 0001 | 1444.38 | 1472.6 0.7 0.0 | 15.7 | 1467.9 4.6 |
| 96 | 1010 0000 | 1460.00 | 1484.8 0.2 0.2 | 12.2 | 1483.8 1.0 |
| 97 | 1001 1111 | 1475.63 | 1498.9 -0.6 0.0 | 14.1 | 1499.7 -0.8 |
| 98 | 1001 1110 | 1491.25 | 1508.2 -0.3 -0.4 | 9.3 | 1515.6 -7.4 |
| 99 | 1001 1101 | 1506.88 | 1534.2 -0.0 -0.8 | 26.0 | 1531.4 2.8 |
| 100 | 1001 1100 | 1522.50 | 1543.5 0.6 0.6 | 9.3 | 1547.3 -3.8 |
| 101 | 1001 1011 | 1538.13 | 1561.4 0.4 0.4 | 17.8 | 1563.2 -1.8 |
| 102 | 1001 1010 | 1553.75 | 1579.8 -0.5 -0.1 | 18.4 | 1579.1 0.7 |
| 103 | 1001 1001 | 1569.38 | 1601.1 -0.5 -0.6 | 21.3 | 1594.9 6.2 |
| 104 | 1001 1000 | 1585.00 | 1606.5 0.0 -0.6 | 5.4 | 1610.8 -4.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 563

1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12)

11 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1620.9 | 0.7 | 0.7 | 14.3 | 1626.7 | -5.8 |
| 106 | 1001 0110 | 1616.25 | 1636.5 | -0.0 | 0.5 | 15.6 | 1642.6 | -6.1 |
| 107 | 1001 0101 | 1631.88 | 1660.7 | -0.7 | -0.7 | 24.2 | 1658.4 | 2.3 |
| 108 | 1001 0100 | 1647.50 | 1674.7 | -0.6 | -0.6 | 14.0 | 1674.3 | 0.4 |
| 109 | 1001 0011 | 1663.13 | 1687.4 | 0.5 | -0.0 | 12.7 | 1690.2 | -2.7 |
| 110 | 1001 0010 | 1678.75 | 1708.7 | 0.5 | 0.4 | 21.3 | 1706.0 | 2.7 |
| 111 | 1001 0001 | 1694.38 | 1725.6 | 0.0 | 0.2 | 16.8 | 1721.9 | 3.6 |
| 112 | 1001 0000 | 1710.00 | 1742.7 | -0.7 | -0.6 | 17.2 | 1737.8 | 4.9 |
| 113 | 1000 1111 | 1725.63 | 1750.7 | 0.0 | -0.7 | 7.9 | 1753.7 | -3.0 |
| 114 | 1000 1110 | 1741.25 | 1759.8 | 0.5 | 0.5 | 9.1 | 1769.5 | -9.8 |
| 115 | 1000 1101 | 1756.88 | 1785.2 | 0.8 | 0.8 | 25.4 | 1785.4 | -0.2 |
| 116 | 1000 1100 | 1772.50 | 1799.6 | -0.5 | 0.0 | 14.4 | 1801.3 | -1.7 |
| 117 | 1000 1011 | 1788.13 | 1813.5 | -0.6 | -0.6 | 13.9 | 1817.2 | -3.7 |
| 118 | 1000 1010 | 1803.75 | 1831.9 | 0.0 | -0.5 | 18.4 | 1833.0 | -1.2 |
| 119 | 1000 1001 | 1819.38 | 1852.2 | 0.8 | 0.7 | 20.3 | 1848.9 | 3.3 |
| 120 | 1000 1000 | 1835.00 | 1866.8 | -0.0 | 0.3 | 14.6 | 1864.8 | 2.0 |
| 121 | 1000 0111 | 1850.63 | 1873.3 | -0.7 | -0.7 | 6.5 | 1880.7 | -7.3 |
| 122 | 1000 0110 | 1866.25 | 1888.8 | -0.6 | -0.6 | 15.5 | 1896.5 | -7.7 |
| 123 | 1000 0101 | 1881.88 | 1911.4 | 0.9 | 0.0 | 27.5 | 1912.4 | -1.0 |
| 124 | 1000 0100 | 1897.50 | 1929.6 | 0.6 | 0.7 | 18.3 | 1928.3 | 1.4 |
| 125 | 1000 0011 | 1913.13 | 1939.0 | -0.1 | 0.4 | 9.3 | 1944.2 | -5.2 |
| 126 | 1000 0010 | 1928.75 | 1961.9 | -0.6 | -0.6 | 22.9 | 1960.0 | 1.9 |
| 127 | 1000 0001 | 1944.38 | 1977.5 | -0.1 | -0.6 | 15.6 | 1975.9 | 1.6 |
| 128 | 1000 0000 | 1960.00 | 1994.9 | 0.5 | 0.4 | 17.3 | 1991.8 | 3.1 |
| 129 | 0111 1111 | 1975.63 | 2002.2 | 0.4 | 0.5 | 7.3 | 2007.7 | -5.5 |
| 130 | 0111 1110 | 1991.25 | 2017.8 | -0.5 | 0.0 | 15.6 | 2023.5 | -5.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 564
 1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12)



30 30

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 131 | 0111 1101 | 2006.88 | 2042.7 -0.6 -0.6 | 24.9 | 2039.4 3.3 |
| 132 | 0111 1100 | 2022.50 | 2056.5 0.0 -0.6 | 13.8 | 2055.3 1.2 |
| 133 | 0111 1011 | 2038.13 | 2069.0 0.5 0.6 | 12.5 | 2071.2 -2.1 |
| 134 | 0111 1010 | 2053.75 | 2089.8 0.0 0.5 | 20.8 | 2087.0 2.8 |
| 135 | 0111 1001 | 2069.38 | 2110.1 -0.9 -0.9 | 20.3 | 2102.9 7.2 |
| 136 | 0111 1000 | 2085.00 | 2119.4 -0.4 -0.5 | 9.2 | 2118.8 0.6 |
| 137 | 0111 0111 | 2100.63 | 2129.6 0.0 0.0 | 10.2 | 2134.6 -5.1 |
| 138 | 0111 0110 | 2116.25 | 2146.1 0.5 0.5 | 16.6 | 2150.5 -4.4 |
| 139 | 0111 0101 | 2131.88 | 2169.0 -0.0 0.6 | 22.9 | 2166.4 2.6 |
| 140 | 0111 0100 | 2147.50 | 2186.1 -0.4 -0.5 | 17.0 | 2182.3 3.8 |
| 141 | 0111 0011 | 2163.13 | 2196.0 0.0 -0.4 | 9.9 | 2198.1 -2.2 |
| 142 | 0111 0010 | 2178.75 | 2219.9 0.4 0.3 | 24.0 | 2214.0 5.9 |
| 143 | 0111 0001 | 2194.38 | 2235.4 0.5 0.5 | 15.4 | 2229.9 5.5 |
| 144 | 0111 0000 | 2210.00 | 2245.7 -0.6 -0.1 | 10.3 | 2245.8 -0.0 |
| 145 | 0110 1111 | 2225.63 | 2254.6 -0.4 -0.4 | 8.9 | 2261.6 -7.0 |
| 146 | 0110 1110 | 2241.25 | 2270.2 -0.0 -0.6 | 15.5 | 2277.5 -7.3 |
| 147 | 0110 1101 | 2256.88 | 2294.3 0.4 0.4 | 24.1 | 2293.4 0.9 |
| 148 | 0110 1100 | 2272.50 | 2312.3 0.0 0.6 | 18.0 | 2309.3 3.0 |
| 149 | 0110 1011 | 2288.13 | 2321.5 -0.5 -0.5 | 9.2 | 2325.1 -3.6 |
| 150 | 0110 1010 | 2303.75 | 2343.0 -0.6 -0.6 | 21.4 | 2341.0 2.0 |
| 151 | 0110 1001 | 2319.38 | 2361.4 0.8 0.0 | 18.4 | 2356.9 4.5 |
| 152 | 0110 1000 | 2335.00 | 2374.6 0.5 0.5 | 13.2 | 2372.8 1.8 |
| 153 | 0110 0111 | 2350.63 | 2380.6 -0.1 0.5 | 6.1 | 2388.6 -8.0 |
| 154 | 0110 0110 | 2366.25 | 2398.7 -0.4 -0.5 | 18.1 | 2404.5 -5.8 |
| 155 | 0110 0101 | 2381.88 | 2421.7 -0.0 -0.8 | 23.0 | 2420.4 1.3 |
| 156 | 0110 0100 | 2397.50 | 2441.6 0.4 0.4 | 19.9 | 2436.3 5.4 |
| 157 | 0110 0011 | 2413.13 | 2447.4 0.4 0.5 | 5.7 | 2452.1 -4.8 |

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HS-236 THFMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 565

1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12) L 33 3

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2470.9 | -0.7 | 0.0 | 23.5 | 2468.0 | 2.9 |
| 159 | 0110 0001 | 2444.38 | 2487.7 | -0.6 | -0.6 | 16.8 | 2483.9 | 3.8 |
| 160 | 0110 0000 | 2460.00 | 2496.1 | 0.0 | -0.4 | 8.4 | 2499.8 | -3.6 |
| 161 | 0101 1111 | 2475.63 | 2507.5 | 0.6 | 0.5 | 11.4 | 2515.6 | -8.1 |
| 162 | 0101 1110 | 2491.25 | 2522.2 | -0.1 | 0.4 | 14.7 | 2531.5 | -9.3 |
| 163 | 0101 1101 | 2506.88 | 2548.4 | -0.7 | -0.7 | 26.2 | 2547.4 | 1.0 |
| 164 | 0101 1100 | 2522.50 | 2562.4 | -0.6 | -0.6 | 13.9 | 2563.2 | -0.9 |
| 165 | 0101 1011 | 2538.13 | 2574.4 | 0.5 | 0.0 | 12.1 | 2579.1 | -4.7 |
| 166 | 0101 1010 | 2553.75 | 2595.0 | 0.4 | 0.3 | 20.6 | 2595.0 | 0.1 |
| 167 | 0101 1001 | 2569.38 | 2615.0 | -0.0 | 0.6 | 20.0 | 2610.9 | 4.2 |
| 168 | 0101 1000 | 2585.00 | 2621.1 | -0.5 | -0.6 | 6.1 | 2626.7 | -5.6 |
| 169 | 0101 0111 | 2600.63 | 2634.6 | 0.0 | -0.5 | 13.5 | 2642.6 | -8.0 |
| 170 | 0101 0110 | 2616.25 | 2650.9 | 0.5 | 0.6 | 16.3 | 2658.5 | -7.6 |
| 171 | 0101 0101 | 2631.88 | 2674.5 | 0.6 | 0.6 | 23.6 | 2674.4 | 0.1 |
| 172 | 0101 0100 | 2647.50 | 2691.8 | -0.7 | -0.1 | 17.3 | 2690.2 | 1.6 |
| 173 | 0101 0011 | 2663.13 | 2701.3 | -0.4 | -0.4 | 9.4 | 2706.1 | -4.8 |
| 174 | 0101 0010 | 2678.75 | 2725.1 | 0.1 | -0.5 | 23.8 | 2722.0 | 3.1 |
| 175 | 0101 0001 | 2694.38 | 2740.5 | 0.6 | 0.5 | 15.3 | 2737.9 | 2.6 |
| 176 | 0101 0000 | 2710.00 | 2754.5 | 0.0 | 0.7 | 14.0 | 2753.7 | 0.8 |
| 177 | 0100 1111 | 2725.63 | 2760.3 | -0.7 | -0.6 | 5.7 | 2769.6 | -9.3 |
| 178 | 0100 1110 | 2741.25 | 2775.1 | -0.3 | -0.3 | 14.8 | 2785.5 | -10.4 |
| 179 | 0100 1101 | 2756.88 | 2799.9 | 0.7 | -0.0 | 24.8 | 2801.4 | -1.5 |
| 180 | 0100 1100 | 2772.50 | 2818.2 | 0.6 | 0.7 | 18.4 | 2817.2 | 1.0 |
| 181 | 0100 1011 | 2788.13 | 2826.5 | 0.0 | 0.5 | 8.3 | 2833.1 | -6.6 |
| 182 | 0100 1010 | 2803.75 | 2848.1 | -0.9 | -0.9 | 21.5 | 2849.0 | -0.9 |
| 183 | 0100 1001 | 2819.38 | 2867.6 | 0.0 | -0.5 | 19.6 | 2864.9 | 2.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 566

1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12) 00 30 01



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2882.8 | 0.5 | 0.6 | 15.1 | 2880.7 | 2.1 |
| 185 | 0100 0111 | 2850.63 | 2886.2 | 0.5 | 0.6 | 3.4 | 2896.6 | -10.4 |
| 186 | 0100 0110 | 2866.25 | 2903.9 | -0.7 | -0.0 | 17.7 | 2912.5 | -8.6 |
| 187 | 0100 0101 | 2881.88 | 2927.5 | -0.7 | -0.7 | 23.6 | 2928.3 | -0.9 |
| 188 | 0100 0100 | 2897.50 | 2947.9 | 0.0 | -0.7 | 20.4 | 2944.2 | 3.7 |
| 189 | 0100 0011 | 2913.13 | 2953.1 | 0.4 | 0.5 | 5.2 | 2960.1 | -7.0 |
| 190 | 0100 0010 | 2928.75 | 2975.4 | -0.1 | 0.6 | 22.3 | 2976.0 | -0.6 |
| 191 | 0100 0001 | 2944.38 | 2993.1 | -0.6 | -0.6 | 17.7 | 2991.8 | 1.3 |
| 192 | 0100 0000 | 2960.00 | 3009.4 | -0.9 | -0.9 | 16.3 | 3007.7 | 1.7 |
| 193 | 0011 1111 | 2975.63 | 3014.8 | 0.6 | -0.0 | 5.4 | 3023.6 | -8.8 |
| 194 | 0011 1110 | 2991.25 | 3029.9 | 0.6 | 0.5 | 15.0 | 3039.5 | -9.6 |
| 195 | 0011 1101 | 3006.88 | 3055.7 | -0.1 | 0.8 | 25.8 | 3055.3 | 0.3 |
| 196 | 0011 1100 | 3022.50 | 3069.0 | -0.6 | -0.6 | 13.3 | 3071.2 | -2.2 |
| 197 | 0011 1011 | 3038.13 | 3082.7 | -0.1 | -0.5 | 13.7 | 3087.1 | -4.4 |
| 198 | 0011 1010 | 3053.75 | 3103.5 | 0.6 | 0.7 | 20.8 | 3103.0 | 0.6 |
| 199 | 0011 1001 | 3069.38 | 3123.5 | 0.6 | 0.6 | 19.9 | 3118.8 | 4.7 |
| 200 | 0011 1000 | 3085.00 | 3125.5 | -0.5 | -0.0 | 2.1 | 3134.7 | -9.2 |
| 201 | 0011 0111 | 3100.63 | 3142.7 | -0.6 | -0.6 | 17.2 | 3150.6 | -7.9 |
| 202 | 0011 0110 | 3116.25 | 3159.9 | -0.0 | -0.6 | 17.2 | 3166.5 | -6.5 |
| 203 | 0011 0101 | 3131.88 | 3183.5 | 0.6 | 0.6 | 23.6 | 3182.3 | 1.2 |
| 204 | 0011 0100 | 3147.50 | 3198.8 | -0.1 | 0.5 | 15.3 | 3198.2 | 0.5 |
| 205 | 0011 0011 | 3163.13 | 3210.0 | -0.6 | -0.5 | 11.2 | 3214.1 | -4.1 |
| 206 | 0011 0010 | 3178.75 | 3234.0 | -0.6 | -0.5 | 24.0 | 3230.0 | 4.0 |
| 207 | 0011 0001 | 3194.38 | 3249.8 | 0.6 | -0.0 | 15.8 | 3245.8 | 3.9 |
| 208 | 0011 0000 | 3210.00 | 3261.3 | 0.4 | 0.6 | 11.5 | 3261.7 | -0.4 |
| 209 | 0010 1111 | 3225.63 | 3268.8 | -0.0 | 0.6 | 7.5 | 3277.6 | -8.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 567

1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=12)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-----------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 :1
LOWER UPPER | POINT | | DEVIATION | |
| 210 | 0010 1110 | 3241.25 | 3284.4 | -0.4 | -0.5 | 15.6 | 3293.5 | -9.1 |
| 211 | 0010 1101 | 3256.88 | 3310.4 | -0.1 | -0.7 | 26.0 | 3309.3 | 1.1 |
| 212 | 0010 1100 | 3272.50 | 3326.8 | 0.4 | 0.3 | 16.4 | 3325.2 | 1.6 |
| 213 | 0010 1011 | 3288.13 | 3336.2 | 0.4 | 0.5 | 9.4 | 3341.1 | -4.8 |
| 214 | 0010 1010 | 3303.75 | 3358.5 | -0.6 | 0.0 | 22.3 | 3356.9 | 1.6 |
| 215 | 0010 1001 | 3319.38 | 3378.5 | -0.8 | -0.8 | 19.9 | 3372.8 | 5.6 |
| 216 | 0010 1000 | 3335.00 | 3390.7 | -0.1 | -0.6 | 12.2 | 3388.7 | 2.0 |
| 217 | 0010 0111 | 3350.63 | 3396.4 | 0.5 | 0.5 | 5.7 | 3404.6 | -8.2 |
| 218 | 0010 0110 | 3366.25 | 3413.9 | -0.1 | 0.5 | 17.5 | 3420.4 | -6.6 |
| 219 | 0010 0101 | 3381.88 | 3438.7 | -0.8 | -0.6 | 24.8 | 3436.3 | 2.3 |
| 220 | 0010 0100 | 3397.50 | 3457.9 | -0.7 | -0.6 | 19.2 | 3452.2 | 5.7 |
| 221 | 0010 0011 | 3413.13 | 3464.0 | 0.3 | -0.0 | 6.1 | 3468.1 | -4.1 |
| 222 | 0010 0010 | 3428.75 | 3489.4 | 0.3 | 0.6 | 25.4 | 3483.9 | 5.4 |
| 223 | 0010 0001 | 3444.38 | 3504.3 | -0.1 | 0.4 | 14.9 | 3499.8 | 4.5 |
| 224 | 0010 0000 | 3460.00 | 3517.4 | -0.8 | -0.9 | 13.2 | 3515.7 | 1.8 |
| 225 | 0001 1111 | 3475.63 | 3525.7 | -0.0 | -0.7 | 8.2 | 3531.6 | -5.9 |
| 226 | 0001 1110 | 3491.25 | 3539.4 | 0.5 | 0.6 | 13.7 | 3547.4 | -8.0 |
| 227 | 0001 1101 | 3506.88 | 3566.0 | 0.6 | 0.8 | 26.6 | 3563.3 | 2.7 |
| 228 | 0001 1100 | 3522.50 | 3579.7 | -0.5 | 0.0 | 13.7 | 3579.2 | 0.6 |
| 229 | 0001 1011 | 3538.13 | 3593.3 | -0.6 | -0.5 | 13.6 | 3595.1 | -1.7 |
| 230 | 0001 1010 | 3553.75 | 3613.5 | 0.9 | -0.0 | 20.2 | 3610.9 | 2.6 |
| 231 | 0001 1001 | 3569.38 | 3634.7 | 0.6 | 0.7 | 21.2 | 3626.8 | 7.9 |
| 232 | 0001 1000 | 3585.00 | 3638.4 | 0.0 | 0.5 | 3.7 | 3642.7 | -4.2 |
| 233 | 0001 0111 | 3600.63 | 3654.0 | -0.9 | -0.7 | 15.6 | 3658.6 | -4.5 |
| 234 | 0001 0110 | 3616.25 | 3670.6 | -0.7 | -0.7 | 16.6 | 3674.4 | -3.8 |
| 235 | 0001 0101 | 3631.88 | 3695.0 | 0.7 | 0.1 | 24.4 | 3690.3 | 4.7 |
| 236 | 0001 0100 | 3647.50 | 3710.3 | -0.1 | 0.2 | 15.3 | 3706.2 | 4.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 568
 1981/11/30 14:58:56 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.



3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=12)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3721.3 | -0.1 | 0.4 | 11.0 | 3722.1 | -0.8 |
| 238 | 0001 0010 | 3678.75 | 3745.4 | -0.8 | -0.7 | 24.2 | 3737.9 | 7.5 |
| 239 | 0001 0001 | 3694.38 | 3762.0 | -0.1 | -0.5 | 16.6 | 3753.8 | 8.2 |
| 240 | 0001 0000 | 3710.00 | 3778.7 | 0.3 | 0.5 | 16.7 | 3769.7 | 9.0 |
| 241 | 0000 1111 | 3725.63 | 3781.1 | 0.8 | 0.8 | 2.4 | 3785.5 | -4.5 |
| 242 | 0000 1110 | 3741.25 | 3796.2 | -0.8 | -0.1 | 15.1 | 3801.4 | -5.2 |
| 243 | 0000 1101 | 3756.88 | 3822.9 | -0.9 | -0.7 | 26.7 | 3817.3 | 5.6 |
| 244 | 0000 1100 | 3772.50 | 3839.2 | 1.1 | 0.0 | 16.3 | 3833.2 | 6.0 |
| 245 | 0000 1011 | 3788.13 | 3849.0 | 0.5 | 0.5 | 9.8 | 3849.0 | -0.0 |
| 246 | 0000 1010 | 3803.75 | 3870.4 | -0.2 | 0.5 | 21.3 | 3864.9 | 5.4 |
| 247 | 0000 1001 | 3819.38 | 3891.9 | -0.9 | -0.8 | 21.5 | 3880.8 | 11.1 |
| 248 | 0000 1000 | 3835.00 | 3906.6 | -0.6 | -0.6 | 14.7 | 3896.7 | 10.0 |
| 249 | 0000 0111 | 3850.63 | 3909.8 | 0.7 | 0.0 | 3.2 | 3912.5 | -2.8 |
| 250 | 0000 0110 | 3866.25 | 3926.7 | 0.4 | 0.5 | 16.9 | 3928.4 | -1.7 |
| 251 | 0000 0101 | 3881.88 | 3951.6 | -0.1 | 0.6 | 24.9 | 3944.3 | 7.3 |
| 252 | 0000 0100 | 3897.50 | 3971.5 | -0.8 | -0.7 | 19.9 | 3960.2 | 11.3 |
| 253 | 0000 0011 | 3913.13 | 3978.4 | -0.1 | -0.6 | 6.9 | 3976.0 | 2.4 |
| 254 | 0000 0010 | 3928.75 | 4002.8 | 0.5 | 0.7 | 24.4 | 3991.9 | 10.9 |
| 255 | 0000 0001 | 3944.38 | 4018.2 | 0.5 | 0.7 | 15.4 | 4007.8 | 10.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 569
 1981/11/30 15:05:19 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)
S U M M A R Y



CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.844X - 37.8MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.403%
 OFFSET IS:-37.8MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998440$
 ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR = 4.743MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| | | | | | |
|---|-------------|----------|---------|-------------|--------------------|
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 27.4MV | 227 | 15.913MV | 1.4MV | 200 | 5.611MV |
| LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 0.8MV | 191 | -0.144MV | -6.0MV | 241 | .770MV |
| UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 5.7MV | 169 | 0.116MV | -1.3MV | 152 | .778MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 570

1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3 5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=13) 00 30 01



| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -27.0 | -1.2 | 0.1 | | -22.0 | -5.0 |
| 2 | 1111 1110 | -8.750 | -14.2 | -0.1 | -0.0 | 12.7 | -6.1 | -8.1 |
| 3 | 1111 1101 | 6.875 | 11.1 | -0.1 | -0.5 | 25.4 | 9.7 | 1.5 |
| 4 | 1111 1100 | 22.500 | 23.4 | 0.5 | 0.6 | 12.2 | 25.5 | -2.2 |
| 5 | 1111 1011 | 38.125 | 39.4 | -0.1 | 0.3 | 16.0 | 41.4 | -2.0 |
| 6 | 1111 1010 | 53.750 | 57.5 | -0.1 | 0.0 | 18.1 | 57.2 | 0.2 |
| 7 | 1111 1001 | 69.375 | 78.7 | -0.5 | -0.5 | 21.2 | 73.1 | 5.6 |
| 8 | 1111 1000 | 85.000 | 83.1 | 0.3 | -0.0 | 4.4 | 88.9 | -5.9 |
| 9 | 1111 0111 | 100.625 | 100.2 | 0.3 | 0.3 | 17.1 | 104.8 | -4.6 |
| 10 | 1111 0110 | 116.250 | 115.9 | -0.1 | 0.0 | 15.7 | 120.6 | -4.7 |
| 11 | 1111 0101 | 131.875 | 139.1 | -0.5 | -0.5 | 23.1 | 136.5 | 2.6 |
| 12 | 1111 0100 | 147.500 | 155.1 | -0.6 | -0.5 | 16.0 | 152.3 | 2.8 |
| 13 | 1111 0011 | 163.125 | 166.3 | 0.1 | 0.1 | 11.2 | 168.1 | -1.9 |
| 14 | 1111 0010 | 178.750 | 187.8 | -0.1 | 0.0 | 21.5 | 184.0 | 3.8 |
| 15 | 1111 0001 | 194.375 | 205.6 | -0.5 | 0.0 | 17.7 | 199.8 | 5.7 |
| 16 | 1111 0000 | 210.000 | 214.3 | -0.1 | 0.0 | 8.7 | 215.7 | -1.4 |
| 17 | 1110 1111 | 225.625 | 227.6 | -0.1 | -0.6 | 13.3 | 231.5 | -3.9 |
| 18 | 1110 1110 | 241.250 | 240.5 | -0.1 | -0.1 | 12.9 | 247.4 | -6.9 |
| 19 | 1110 1101 | 256.875 | 265.0 | 0.4 | 0.5 | 24.5 | 263.2 | 1.8 |
| 20 | 1110 1100 | 272.500 | 280.9 | -0.6 | -0.0 | 15.8 | 279.0 | 1.8 |
| 21 | 1110 1011 | 288.125 | 294.3 | -0.4 | -0.4 | 13.4 | 294.9 | -0.6 |
| 22 | 1110 1010 | 303.750 | 312.4 | -0.2 | -0.0 | 18.2 | 310.7 | 1.7 |
| 23 | 1110 1001 | 319.375 | 332.4 | 0.1 | 0.4 | 20.0 | 326.6 | 5.8 |
| 24 | 1110 1000 | 335.000 | 344.7 | 0.0 | 0.2 | 12.3 | 342.4 | 2.3 |
| 25 | 1110 0111 | 350.625 | 354.8 | -0.4 | -0.3 | 10.1 | 358.3 | -3.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 571

1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)



11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 370.4 | 0.0 | 0.0 | 15.7 | 374.1 | -0.7 |
| 27 | 1110 0101 | 381.875 | 392.9 | 0.3 | 0.0 | 22.4 | 390.0 | 2.9 |
| 28 | 1110 0100 | 397.500 | 412.5 | 0.5 | 0.6 | 19.7 | 405.8 | 6.7 |
| 29 | 1110 0011 | 413.125 | 420.5 | 0.3 | 0.0 | 8.0 | 421.6 | -1.1 |
| 30 | 1110 0010 | 428.750 | 442.1 | -0.1 | 0.0 | 21.6 | 437.5 | 4.6 |
| 31 | 1110 0001 | 444.375 | 459.3 | 0.0 | -0.3 | 17.2 | 453.3 | 6.0 |
| 32 | 1110 0000 | 460.000 | 465.7 | 0.4 | 0.5 | 6.4 | 469.2 | -0.5 |
| 33 | 1101 1111 | 475.625 | 482.3 | 0.5 | 0.6 | 16.6 | 485.0 | -2.7 |
| 34 | 1101 1110 | 491.250 | 494.9 | -0.0 | 0.0 | 12.6 | 500.9 | -5.9 |
| 35 | 1101 1101 | 506.875 | 520.7 | -0.5 | -0.4 | 25.7 | 516.7 | 4.0 |
| 36 | 1101 1100 | 522.500 | 532.9 | 0.4 | 0.1 | 12.2 | 532.6 | 0.3 |
| 37 | 1101 1011 | 538.125 | 549.1 | 0.5 | 0.4 | 16.2 | 548.4 | 0.7 |
| 38 | 1101 1010 | 553.750 | 566.5 | -0.0 | 0.0 | 17.4 | 564.2 | 2.3 |
| 39 | 1101 1001 | 569.375 | 588.3 | -0.6 | -0.5 | 21.8 | 580.1 | 0.2 |
| 40 | 1101 1000 | 585.000 | 595.0 | -0.2 | -0.3 | 6.7 | 595.9 | -0.9 |
| 41 | 1101 0111 | 600.625 | 609.4 | 0.3 | -0.0 | 14.4 | 611.8 | -2.3 |
| 42 | 1101 0110 | 616.250 | 624.6 | -0.1 | 0.0 | 15.1 | 627.6 | -3.0 |
| 43 | 1101 0101 | 631.875 | 648.2 | -0.5 | 0.0 | 23.6 | 643.5 | 4.8 |
| 44 | 1101 0100 | 647.500 | 664.0 | -0.6 | -0.4 | 15.7 | 659.3 | 4.7 |
| 45 | 1101 0011 | 663.125 | 676.0 | -0.2 | -0.0 | 17.0 | 675.7 | 0.8 |
| 46 | 1101 0010 | 678.750 | 696.2 | -0.1 | -0.0 | 20.1 | 691.0 | 5.2 |
| 47 | 1101 0001 | 694.375 | 713.6 | 0.2 | 0.5 | 17.5 | 706.8 | 6.8 |
| 48 | 1101 0000 | 710.000 | 727.5 | -0.2 | -0.1 | 13.9 | 722.7 | 4.8 |
| 49 | 1100 1111 | 725.625 | 735.9 | -0.5 | -0.4 | 8.4 | 738.5 | -2.6 |
| 50 | 1100 1110 | 741.250 | 748.4 | -0.2 | -0.1 | 12.5 | 754.4 | -5.9 |
| 51 | 1100 1101 | 756.875 | 773.2 | 0.3 | 0.5 | 24.7 | 770.7 | 3.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 572

1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 787.5 | -0.0 | 1.3 | 14.3 | 786.1 | 1.4 |
| 53 | 1100 1011 | 788.125 | 802.4 | -0.5 | -0.4 | 15.0 | 801.9 | 0.5 |
| 54 | 1100 1010 | 803.750 | 819.9 | 0.1 | 0.1 | 17.4 | 817.8 | 2.1 |
| 55 | 1100 1001 | 819.375 | 840.5 | 0.3 | -0.0 | 20.6 | 833.6 | 6.9 |
| 56 | 1100 1000 | 835.000 | 855.5 | 0.1 | 0.2 | 14.9 | 849.4 | 6.0 |
| 57 | 1100 0111 | 850.625 | 862.4 | -0.5 | -0.1 | 6.9 | 865.3 | -2.9 |
| 58 | 1100 0110 | 866.250 | 877.3 | -0.1 | 0.0 | 14.8 | 881.1 | -3.9 |
| 59 | 1100 0101 | 881.875 | 900.4 | -0.0 | -0.4 | 23.1 | 897.0 | 3.4 |
| 60 | 1100 0100 | 897.500 | 919.9 | 0.6 | 0.6 | 19.5 | 912.8 | 7.1 |
| 61 | 1100 0011 | 913.125 | 928.2 | -0.1 | 0.5 | 8.3 | 928.7 | -0.5 |
| 62 | 1100 0010 | 928.750 | 948.6 | -0.1 | -0.0 | 20.4 | 944.5 | 4.1 |
| 63 | 1100 0001 | 944.375 | 965.8 | -0.4 | -0.3 | 17.2 | 960.3 | 5.5 |
| 64 | 1100 0000 | 960.000 | 977.2 | 0.5 | 0.0 | 11.3 | 976.2 | 1.0 |
| 65 | 1011 1111 | 975.625 | 993.3 | 0.6 | 0.6 | 16.1 | 997.0 | 1.3 |
| 66 | 1011 1110 | 991.250 | 1002.8 | 0.0 | -0.1 | 9.5 | 1007.9 | -5.0 |
| 67 | 1011 1101 | 1006.88 | 1028.6 | -0.4 | -0.4 | 25.8 | 1023.7 | 4.9 |
| 68 | 1011 1100 | 1022.50 | 1040.6 | -0.4 | -0.4 | 11.9 | 1039.6 | 1.0 |
| 69 | 1011 1011 | 1038.13 | 1056.5 | 0.7 | -0.1 | 16.0 | 1055.4 | 1.1 |
| 70 | 1011 1010 | 1053.75 | 1074.3 | 0.1 | 0.1 | 17.8 | 1071.3 | 3.1 |
| 71 | 1011 1001 | 1069.38 | 1095.9 | -0.4 | 0.0 | 21.6 | 1087.1 | 8.8 |
| 72 | 1011 1000 | 1085.00 | 1098.6 | -0.3 | -0.2 | 2.6 | 1102.9 | -4.4 |
| 73 | 1011 0111 | 1100.63 | 1117.0 | -0.1 | -0.6 | 18.4 | 1118.8 | -1.8 |
| 74 | 1011 0110 | 1116.25 | 1131.6 | 0.0 | -0.1 | 14.6 | 1134.6 | -3.1 |
| 75 | 1011 0101 | 1131.88 | 1154.9 | 0.4 | 0.4 | 23.3 | 1150.5 | 4.4 |
| 76 | 1011 0100 | 1147.50 | 1170.0 | -0.5 | 0.0 | 15.1 | 1166.3 | 3.7 |
| 77 | 1011 0011 | 1163.13 | 1183.2 | -0.5 | -0.5 | 13.3 | 1182.7 | 1.1 |
| 78 | 1011 0010 | 1178.75 | 1203.2 | 0.1 | 0.0 | 20.0 | 1198.0 | 5.2 |

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1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 79 | 1011 0001 | 1194.38 | 1220.8 0.4 0.5 | 17.6 | 1213.9 7.0 |
| 80 | 1011 0000 | 1210.00 | 1232.6 0.0 0.0 | 11.8 | 1229.7 2.9 |
| 81 | 1010 1111 | 1225.63 | 1245.5 -0.6 -0.5 | 12.9 | 1245.5 -0.1 |
| 82 | 1010 1110 | 1241.25 | 1254.6 0.0 0.0 | 9.1 | 1261.4 -6.7 |
| 83 | 1010 1101 | 1256.88 | 1279.7 0.4 -0.0 | 25.0 | 1277.2 2.4 |
| 84 | 1010 1100 | 1272.50 | 1295.2 0.7 0.7 | 15.5 | 1293.1 2.1 |
| 85 | 1010 1011 | 1288.13 | 1308.6 -0.4 0.0 | 13.4 | 1308.9 -0.3 |
| 86 | 1010 1010 | 1303.75 | 1326.5 0.0 0.0 | 17.9 | 1324.8 1.7 |
| 87 | 1010 1001 | 1319.38 | 1347.4 -0.1 -0.6 | 20.9 | 1340.6 6.8 |
| 88 | 1010 1000 | 1335.00 | 1358.4 0.3 0.3 | 11.0 | 1356.5 2.0 |
| 89 | 1010 0111 | 1350.63 | 1367.7 0.5 0.5 | 9.3 | 1372.3 -4.6 |
| 90 | 1010 0110 | 1366.25 | 1383.1 0.1 0.0 | 15.3 | 1388.1 -5.1 |
| 91 | 1010 0101 | 1381.88 | 1406.6 -0.5 -0.5 | 23.5 | 1404.0 2.6 |
| 92 | 1010 0100 | 1397.50 | 1425.1 0.1 -0.4 | 18.5 | 1419.8 5.3 |
| 93 | 1010 0011 | 1413.13 | 1434.1 0.5 0.5 | 9.0 | 1435.7 -1.6 |
| 94 | 1010 0010 | 1428.75 | 1455.0 -0.0 -0.1 | 20.9 | 1451.5 3.5 |
| 95 | 1010 0001 | 1444.38 | 1472.5 -0.6 -0.4 | 17.4 | 1467.4 5.1 |
| 96 | 1010 0000 | 1460.00 | 1484.8 -0.1 -1.0 | 12.4 | 1483.2 1.6 |
| 97 | 1001 1111 | 1475.63 | 1497.6 0.6 0.1 | 12.7 | 1499.1 -1.5 |
| 98 | 1001 1110 | 1491.25 | 1506.5 -0.1 0.1 | 8.9 | 1514.9 -8.4 |
| 99 | 1001 1101 | 1506.88 | 1532.2 -0.1 0.4 | 25.7 | 1530.7 1.5 |
| 100 | 1001 1100 | 1522.50 | 1544.8 -0.8 -0.6 | 12.5 | 1546.6 -1.8 |
| 101 | 1001 1011 | 1538.13 | 1561.3 -0.0 -0.6 | 16.5 | 1562.4 -1.1 |
| 102 | 1001 1010 | 1553.75 | 1577.9 0.0 0.0 | 16.6 | 1578.3 -0.3 |
| 103 | 1001 1001 | 1569.38 | 1599.5 0.5 0.4 | 21.5 | 1594.1 5.3 |
| 104 | 1001 1000 | 1585.00 | 1604.9 -0.0 0.0 | 5.4 | 1610.0 -5.1 |

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1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13) REV 30 81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------------|-------|------------------------------------|------------------------|-------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER UPPER | POINT | | DEVIATION | |
| 105 | 1001 0111 | 1600.63 | 1621.0 | -0.8 | -0.7 | 16.1 | 1625.8 | -4.8 |
| 106 | 1001 0110 | 1616.25 | 1635.0 | -0.0 | 0.1 | 13.9 | 1641.7 | -6.7 |
| 107 | 1001 0101 | 1631.88 | 1658.7 | 0.4 | 0.4 | 23.7 | 1657.5 | 1.2 |
| 108 | 1001 0100 | 1647.50 | 1673.3 | 0.0 | 0.5 | 14.6 | 1673.3 | -0.0 |
| 109 | 1001 0011 | 1663.13 | 1687.2 | -0.4 | -0.4 | 13.9 | 1689.2 | -2.0 |
| 110 | 1001 0010 | 1678.75 | 1707.1 | 0.1 | 0.2 | 19.9 | 1705.0 | 2.1 |
| 111 | 1001 0001 | 1694.38 | 1724.6 | 0.4 | 0.2 | 17.5 | 1720.9 | 3.8 |
| 112 | 1001 0000 | 1710.00 | 1741.0 | 0.2 | 0.2 | 16.4 | 1736.7 | 4.3 |
| 113 | 1000 1111 | 1725.63 | 1748.8 | 0.0 | 0.6 | 7.8 | 1752.6 | -3.7 |
| 114 | 1000 1110 | 1741.25 | 1758.0 | 0.0 | 0.0 | 9.2 | 1768.4 | -10.4 |
| 115 | 1000 1101 | 1756.88 | 1783.9 | 0.0 | -0.5 | 25.9 | 1784.2 | -0.4 |
| 116 | 1000 1100 | 1772.50 | 1798.0 | 0.4 | 0.5 | 14.1 | 1800.1 | -2.1 |
| 117 | 1000 1011 | 1788.13 | 1812.0 | 0.5 | 0.6 | 14.0 | 1815.9 | -4.0 |
| 118 | 1000 1010 | 1803.75 | 1829.9 | -0.1 | 0.0 | 17.9 | 1831.8 | -1.9 |
| 119 | 1000 1001 | 1819.38 | 1851.0 | -0.4 | -0.4 | 21.1 | 1847.6 | 3.4 |
| 120 | 1000 1000 | 1835.00 | 1865.4 | 0.1 | -0.2 | 14.3 | 1863.5 | 1.9 |
| 121 | 1000 0111 | 1850.63 | 1871.6 | 0.3 | 0.5 | 6.3 | 1879.3 | -7.7 |
| 122 | 1000 0110 | 1866.25 | 1886.4 | 0.0 | 0.0 | 14.7 | 1895.2 | -8.8 |
| 123 | 1000 0101 | 1881.88 | 1910.1 | -0.5 | -0.5 | 23.8 | 1911.0 | -0.9 |
| 124 | 1000 0100 | 1897.50 | 1928.9 | -0.7 | -0.6 | 18.8 | 1926.8 | 2.1 |
| 125 | 1000 0011 | 1913.13 | 1937.7 | 0.6 | 0.1 | 8.8 | 1942.7 | -5.0 |
| 126 | 1000 0010 | 1928.75 | 1958.4 | -0.1 | -0.0 | 20.7 | 1958.5 | -0.1 |
| 127 | 1000 0001 | 1944.38 | 1975.7 | 0.1 | 0.5 | 17.3 | 1974.4 | 1.3 |
| 128 | 1000 0000 | 1960.00 | 1993.6 | -0.1 | -0.1 | 17.9 | 1990.2 | 3.4 |
| 129 | 0111 1111 | 1975.63 | 2001.4 | 0.0 | -0.5 | 7.8 | 2006.1 | -4.7 |
| 130 | 0111 1110 | 1991.25 | 2015.0 | 0.0 | 0.0 | 13.7 | 2021.9 | -6.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 575
 1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13) 0328

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2040.1 | 0.4 | 0.4 | 25.1 | 2037.8 | 2.4 |
| 132 | 0111 1100 | 2022.50 | 2054.8 | -0.6 | 0.9 | 14.6 | 2053.6 | 1.2 |
| 133 | 0111 1011 | 2038.13 | 2068.1 | -0.6 | -0.5 | 13.4 | 2069.4 | -1.3 |
| 134 | 0111 1010 | 2053.75 | 2087.8 | 0.0 | -0.1 | 19.7 | 2085.3 | 2.5 |
| 135 | 0111 1001 | 2069.38 | 2107.3 | 0.5 | 0.5 | 19.4 | 2101.1 | 6.1 |
| 136 | 0111 1000 | 2085.00 | 2115.4 | 0.3 | 0.7 | 8.2 | 2117.0 | -1.5 |
| 137 | 0111 0111 | 2100.63 | 2127.6 | -0.5 | -0.5 | 12.2 | 2132.8 | -5.2 |
| 138 | 0111 0110 | 2116.25 | 2143.6 | -0.0 | 0.0 | 16.0 | 2148.7 | -5.0 |
| 139 | 0111 0101 | 2131.88 | 2166.7 | 0.5 | 0.0 | 23.1 | 2164.5 | 2.2 |
| 140 | 0111 0100 | 2147.50 | 2183.6 | 0.7 | 0.6 | 16.9 | 2180.4 | 3.3 |
| 141 | 0111 0011 | 2163.13 | 2193.9 | -0.2 | 0.5 | 10.3 | 2196.2 | -2.3 |
| 142 | 0111 0010 | 2178.75 | 2215.5 | -0.1 | -0.0 | 21.6 | 2212.0 | 3.5 |
| 143 | 0111 0001 | 2194.38 | 2233.8 | -0.2 | -0.5 | 18.3 | 2227.9 | 5.9 |
| 144 | 0111 0000 | 2210.00 | 2243.3 | 0.2 | 0.2 | 9.4 | 2243.7 | -0.5 |
| 145 | 0110 1111 | 2225.63 | 2257.4 | 0.4 | 0.5 | 14.1 | 2259.6 | -2.2 |
| 146 | 0110 1110 | 2241.25 | 2266.9 | 0.1 | -0.0 | 9.5 | 2275.4 | -8.5 |
| 147 | 0110 1101 | 2256.88 | 2292.2 | -0.4 | -0.4 | 25.3 | 2291.3 | 1.0 |
| 148 | 0110 1100 | 2272.50 | 2310.1 | -0.1 | -0.4 | 17.9 | 2307.1 | 3.0 |
| 149 | 0110 1011 | 2288.13 | 2319.0 | 0.6 | 0.6 | 8.9 | 2323.0 | -3.9 |
| 150 | 0110 1010 | 2303.75 | 2340.1 | 0.0 | 0.1 | 21.1 | 2338.8 | 1.3 |
| 151 | 0110 1001 | 2319.38 | 2359.2 | -0.4 | -0.4 | 19.1 | 2354.6 | 4.6 |
| 152 | 0110 1000 | 2335.00 | 2372.5 | -0.3 | -1.3 | 13.2 | 2370.5 | 2.0 |
| 153 | 0110 0111 | 2350.63 | 2378.6 | 0.5 | -0.0 | 6.1 | 2386.3 | -7.7 |
| 154 | 0110 0110 | 2366.25 | 2395.5 | -0.2 | 0.0 | 16.8 | 2402.2 | -6.7 |
| 155 | 0110 0101 | 2381.88 | 2418.2 | -0.1 | 0.5 | 22.7 | 2418.0 | 0.2 |
| 156 | 0110 0100 | 2397.50 | 2439.8 | -0.7 | -0.6 | 21.5 | 2433.9 | 5.9 |
| 157 | 0110 0011 | 2413.13 | 2445.7 | -0.1 | -0.6 | 5.9 | 2449.7 | -4.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 576
 1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)

11 0
15 1
5 27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 158 | 0110 0010 | 2428.75 | 2467.3 -0.0 0.0 | 21.5 | 2465.5 1.7 |
| 159 | 0110 0001 | 2444.38 | 2484.2 -0.0 0.8 | 16.9 | 2481.4 2.8 |
| 160 | 0110 0000 | 2460.00 | 2493.3 -0.4 0.1 | 9.1 | 2497.2 -3.9 |
| 161 | 0101 1111 | 2475.63 | 2505.7 -0.6 4.8 | 12.4 | 2513.1 -7.4 |
| 162 | 0101 1110 | 2491.25 | 2519.1 -0.0 0.0 | 13.4 | 2528.9 -9.8 |
| 163 | 0101 1101 | 2506.88 | 2544.6 0.4 0.5 | 25.5 | 2544.8 -0.2 |
| 164 | 0101 1100 | 2522.50 | 2558.9 -0.1 0.4 | 14.3 | 2560.6 -1.7 |
| 165 | 0101 1011 | 2538.13 | 2572.5 -0.6 -0.6 | 13.6 | 2576.5 -4.0 |
| 166 | 0101 1010 | 2553.75 | 2592.0 -0.1 -0.1 | 19.6 | 2592.3 -0.3 |
| 167 | 0101 1001 | 2569.38 | 2611.8 0.5 0.0 | 19.8 | 2608.1 3.7 |
| 168 | 0101 1000 | 2585.00 | 2617.4 0.0 0.4 | 5.6 | 2624.0 -6.6 |
| 169 | 0101 0111 | 2600.63 | 2631.6 -0.1 5.7 | 14.2 | 2639.8 -8.2 |
| 170 | 0101 0110 | 2616.25 | 2647.7 -0.2 -0.1 | 16.1 | 2655.7 -8.0 |
| 171 | 0101 0101 | 2631.88 | 2671.8 -0.1 -0.4 | 24.1 | 2671.5 0.2 |
| 172 | 0101 0100 | 2647.50 | 2688.3 0.7 0.7 | 16.5 | 2687.4 0.9 |
| 173 | 0101 0011 | 2663.13 | 2698.1 0.5 0.5 | 9.8 | 2703.2 -5.1 |
| 174 | 0101 0010 | 2678.75 | 2721.8 -0.3 -0.1 | 23.7 | 2719.1 2.8 |
| 175 | 0101 0001 | 2694.38 | 2738.3 -0.6 -0.3 | 16.5 | 2734.9 3.4 |
| 176 | 0101 0000 | 2710.00 | 2752.0 -0.1 -0.3 | 13.6 | 2750.7 1.2 |
| 177 | 0100 1111 | 2725.63 | 2762.3 -5.0 0.4 | 10.3 | 2766.6 -4.3 |
| 178 | 0100 1110 | 2741.25 | 2770.8 -0.0 0.0 | 8.4 | 2782.4 -11.7 |
| 179 | 0100 1101 | 2756.88 | 2796.8 -0.6 -0.5 | 26.1 | 2798.3 -1.5 |
| 180 | 0100 1100 | 2772.50 | 2815.0 -0.3 -0.3 | 18.1 | 2814.1 0.9 |
| 181 | 0100 1011 | 2788.13 | 2823.6 0.5 -0.0 | 8.6 | 2830.0 -6.4 |
| 182 | 0100 1010 | 2803.75 | 2844.1 0.1 3.1 | 20.5 | 2845.8 -1.7 |
| 183 | 0100 1001 | 2819.38 | 2863.4 -0.1 0.0 | 19.2 | 2861.7 1.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 577
 1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------------|-------|------------------------------------|------------------------|-------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER UPPER | POINT | | DEVIATION | |
| 184 | 0100 1000 | 2835.00 | 2879.5 | -0.1 | 0.0 | 16.1 | 2877.5 | 2.0 |
| 185 | 0100 0111 | 2850.63 | 2883.8 | -0.1 | 3.7 | 4.3 | 2893.3 | -9.5 |
| 186 | 0100 0110 | 2866.25 | 2899.5 | 0.0 | -0.0 | 15.6 | 2909.2 | -9.7 |
| 187 | 0100 0101 | 2881.88 | 2923.0 | 0.4 | 0.5 | 23.5 | 2925.0 | -2.0 |
| 188 | 0100 0100 | 2897.50 | 2944.6 | -0.6 | 0.1 | 21.6 | 2940.9 | 3.7 |
| 189 | 0100 0011 | 2913.13 | 2950.3 | -0.4 | -0.4 | 5.7 | 2956.7 | -6.5 |
| 190 | 0100 0010 | 2928.75 | 2971.5 | -0.1 | 0.1 | 21.2 | 2972.6 | -1.1 |
| 191 | 0100 0001 | 2944.38 | 2989.4 | 0.8 | 0.8 | 17.9 | 2988.4 | 1.0 |
| 192 | 0100 0000 | 2960.00 | 3005.1 | -0.0 | 0.6 | 15.7 | 3004.3 | 0.9 |
| 193 | 0011 1111 | 2975.63 | 3012.2 | -0.6 | 4.4 | 7.0 | 3020.1 | -7.9 |
| 194 | 0011 1110 | 2991.25 | 3025.7 | -0.1 | -0.1 | 13.6 | 3035.9 | -10.2 |
| 195 | 0011 1101 | 3006.88 | 3051.7 | 0.4 | -0.1 | 26.0 | 3051.8 | -0.1 |
| 196 | 0011 1100 | 3022.50 | 3064.5 | 0.4 | 0.4 | 12.8 | 3067.6 | -3.1 |
| 197 | 0011 1011 | 3038.13 | 3078.7 | -0.0 | 0.6 | 14.2 | 3083.5 | -4.8 |
| 198 | 0011 1010 | 3053.75 | 3099.5 | -0.1 | 0.1 | 20.8 | 3099.3 | 0.2 |
| 199 | 0011 1001 | 3069.38 | 3119.6 | -0.0 | -0.3 | 20.1 | 3115.2 | 4.4 |
| 200 | 0011 1000 | 3085.00 | 3121.0 | 0.2 | 0.2 | 1.4 | 3131.0 | -10.0 |
| 201 | 0011 0111 | 3100.63 | 3138.7 | 0.5 | 0.6 | 17.7 | 3146.9 | -8.2 |
| 202 | 0011 0110 | 3116.25 | 3155.0 | -0.1 | 0.0 | 16.3 | 3162.7 | -7.7 |
| 203 | 0011 0101 | 3131.88 | 3179.5 | -0.6 | -0.4 | 24.5 | 3178.5 | 1.0 |
| 204 | 0011 0100 | 3147.50 | 3195.4 | -0.1 | -0.5 | 15.9 | 3194.4 | 1.0 |
| 205 | 0011 0011 | 3163.13 | 3205.8 | 0.5 | 0.6 | 10.4 | 3210.2 | -4.5 |
| 206 | 0011 0010 | 3178.75 | 3229.4 | -0.1 | 0.2 | 23.6 | 3226.1 | 3.3 |
| 207 | 0011 0001 | 3194.38 | 3247.2 | -0.6 | -0.6 | 17.9 | 3241.9 | 5.3 |
| 208 | 0011 0000 | 3210.00 | 3258.6 | 0.0 | -0.0 | 11.3 | 3257.9 | 0.8 |
| 209 | 0010 1111 | 3225.63 | 3270.8 | -5.3 | 0.0 | 12.2 | 3273.6 | -2.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 578

1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)

HAG
1707
527

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG. INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|----------------------------|---------|-------|------------------------------------|------------------------|-------|
| | | | LEVELS RATIO= 1 : 1 | NOMINAL | LOWER | | UPPER | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3278.9 | -0.0 | 0.1 | 8.1 | 3289.4 | -10.6 |
| 211 | 0010 1101 | 3256.88 | 3305.2 | -0.1 | 0.6 | 26.3 | 3305.3 | -0.1 |
| 212 | 0010 1100 | 3272.50 | 3322.8 | -0.5 | -0.4 | 17.6 | 3321.1 | 1.6 |
| 213 | 0010 1011 | 3288.13 | 3332.8 | -0.1 | -0.5 | 10.0 | 3337.0 | -4.2 |
| 214 | 0010 1010 | 3303.75 | 3353.4 | 0.0 | 0.0 | 20.6 | 3352.8 | 0.6 |
| 215 | 0010 1001 | 3319.38 | 3373.0 | 0.5 | 0.6 | 19.5 | 3368.7 | 4.3 |
| 216 | 0010 1000 | 3335.00 | 3385.9 | -0.1 | 0.1 | 12.9 | 3384.5 | 1.3 |
| 217 | 0010 0111 | 3350.63 | 3392.9 | -0.6 | 5.3 | 7.1 | 3400.4 | -7.4 |
| 218 | 0010 0110 | 3366.25 | 3409.0 | -0.0 | 0.0 | 16.1 | 3416.2 | -7.2 |
| 219 | 0010 0101 | 3381.88 | 3433.0 | 0.3 | 0.4 | 24.0 | 3432.0 | 0.9 |
| 220 | 0010 0100 | 3397.50 | 3452.9 | -0.1 | 0.6 | 19.9 | 3447.9 | 5.0 |
| 221 | 0010 0011 | 3413.13 | 3460.3 | -0.7 | -0.6 | 7.3 | 3463.7 | -3.5 |
| 222 | 0010 0010 | 3428.75 | 3484.5 | -2.6 | 0.0 | 24.2 | 3479.6 | 4.9 |
| 223 | 0010 0001 | 3444.38 | 3500.5 | 0.0 | 0.0 | 16.1 | 3495.4 | 5.1 |
| 224 | 0010 0000 | 3460.00 | 3512.4 | 0.3 | 0.4 | 11.9 | 3511.3 | 1.1 |
| 225 | 0001 1111 | 3475.63 | 3526.7 | -0.1 | 0.4 | 14.3 | 3527.1 | -0.4 |
| 226 | 0001 1110 | 3491.25 | 3534.3 | -0.3 | -0.1 | 7.7 | 3543.0 | -8.6 |
| 227 | 0001 1101 | 3506.88 | 3561.7 | -0.3 | -0.6 | 27.4 | 3558.8 | 2.9 |
| 228 | 0001 1100 | 3522.50 | 3574.3 | 0.4 | 0.4 | 12.6 | 3574.6 | -0.3 |
| 229 | 0001 1011 | 3538.13 | 3588.2 | 0.4 | 0.6 | 13.9 | 3590.5 | -2.2 |
| 230 | 0001 1010 | 3553.75 | 3608.7 | -0.1 | 0.0 | 20.4 | 3606.3 | 2.4 |
| 231 | 0001 1001 | 3569.38 | 3629.6 | -0.6 | -0.4 | 20.9 | 3622.2 | 7.5 |
| 232 | 0001 1000 | 3585.00 | 3633.7 | -0.0 | -0.2 | 4.1 | 3638.0 | -4.3 |
| 233 | 0001 0111 | 3600.63 | 3653.9 | -4.8 | 1.4 | 20.1 | 3653.9 | -0.0 |
| 234 | 0001 0110 | 3616.25 | 3664.7 | -0.1 | 0.1 | 10.9 | 3669.7 | -5.0 |
| 235 | 0001 0101 | 3631.88 | 3690.0 | -0.7 | -0.5 | 25.3 | 3685.6 | 4.5 |
| 236 | 0001 0100 | 3647.50 | 3706.1 | -0.7 | -0.5 | 16.0 | 3701.4 | 4.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 579
 1981/11/30 15:05:32 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=13)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3716.3 | 0.5 | 0.2 | 10.2 | 3717.2 | -0.9 |
| 238 | 0001 0010 | 3678.75 | 3739.7 | 0.0 | 0.1 | 23.4 | 3703.1 | 6.6 |
| 239 | 0001 0001 | 3694.38 | 3758.0 | -0.1 | 0.6 | 18.3 | 3748.9 | 9.0 |
| 240 | 0001 0000 | 3710.00 | 3774.0 | -0.4 | -0.3 | 16.1 | 3764.8 | 9.3 |
| 241 | 0000 1111 | 3725.63 | 3782.8 | -6.0 | -0.5 | 8.7 | 3780.6 | 2.2 |
| 242 | 0000 1110 | 3741.25 | 3790.0 | 0.0 | 0.1 | 7.2 | 3796.5 | -6.4 |
| 243 | 0000 1101 | 3756.88 | 3816.8 | 0.4 | 0.6 | 26.8 | 3812.3 | 4.5 |
| 244 | 0000 1100 | 3772.50 | 3834.9 | -0.5 | 0.0 | 18.0 | 3828.2 | 6.7 |
| 245 | 0000 1011 | 3788.13 | 3844.6 | -0.6 | -0.5 | 9.7 | 3844.0 | 0.6 |
| 246 | 0000 1010 | 3803.75 | 3864.8 | -0.0 | 0.0 | 20.2 | 3859.8 | 4.9 |
| 247 | 0000 1001 | 3819.38 | 3885.2 | 0.3 | 0.6 | 20.5 | 3875.7 | 9.6 |
| 248 | 0000 1000 | 3835.00 | 3900.7 | -0.6 | 0.4 | 15.4 | 3891.5 | 9.1 |
| 249 | 0000 0111 | 3850.63 | 3911.5 | -0.7 | -0.5 | 10.8 | 3907.4 | 4.1 |
| 250 | 0000 0110 | 3866.25 | 3921.0 | -1.0 | -0.1 | 9.5 | 3923.2 | -2.2 |
| 251 | 0000 0101 | 3881.88 | 3945.8 | 0.4 | -0.0 | 24.8 | 3939.1 | 6.7 |
| 252 | 0000 0100 | 3897.50 | 3965.7 | 0.5 | 0.7 | 19.9 | 3954.9 | 10.8 |
| 253 | 0000 0011 | 3913.13 | 3972.7 | -0.0 | 0.6 | 7.0 | 3970.7 | 1.9 |
| 254 | 0000 0010 | 3928.75 | 3997.5 | -0.7 | -0.7 | 24.8 | 3986.6 | 10.9 |
| 255 | 0000 0001 | 3944.38 | 4015.0 | -0.5 | -0.4 | 17.4 | 4002.4 | 12.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 580

1981/11/30 15:11:55 FENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14) HAC TEST 527 NOV 30 '81
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = -15.839X - 41.8MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.369%

OFFSET IS: -41.8MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998420$

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.705MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.0MV | 227 | 15.907MV | 3.4MV | 200 | 5.550MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.5MV | 62 | -0.020MV | -1.6MV | 235 | .630MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 5.0MV | 226 | 0.113MV | -1.5MV | 63 | .696MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 581

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)

HAC
T-1
521

NO 30 38

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 :1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|--|------------------------|--|------------------------------------|---|
|--|------------------------|--|------------------------------------|---|

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -32.8 | -0.6 | 0.1 | | -26.0 | -6.9 |
| 2 | 1111 1111 | -8.750 | -18.1 | 1.0 | 1.1 | 14.7 | -10.1 | -8.0 |
| 3 | 1111 1101 | 6.875 | 6.4 | -0.3 | -0.1 | 24.6 | 5.7 | 0.7 |
| 4 | 1111 1100 | 22.500 | 18.6 | -0.4 | -0.2 | 12.2 | 21.6 | -2.9 |
| 5 | 1111 1011 | 38.125 | 34.7 | -0.1 | -0.2 | 16.1 | 37.4 | -2.7 |
| 6 | 1111 1010 | 53.750 | 53.4 | 0.8 | 0.9 | 18.6 | 53.2 | 0.1 |
| 7 | 1111 1001 | 69.375 | 73.1 | -0.1 | -0.0 | 19.7 | 69.1 | 4.0 |
| 8 | 1111 1000 | 85.000 | 80.1 | -1.3 | -0.0 | 7.0 | 84.9 | -4.8 |
| 9 | 1111 0111 | 100.625 | 94.8 | 0.2 | -0.1 | 14.6 | 100.7 | -6.0 |
| 10 | 1111 0110 | 116.250 | 111.9 | 1.0 | 0.1 | 17.2 | 116.6 | -4.6 |
| 11 | 1111 0101 | 131.875 | 134.2 | 0.0 | 0.0 | 22.3 | 132.4 | 1.8 |
| 12 | 1111 0100 | 147.500 | 149.5 | 0.0 | 0.5 | 15.3 | 148.3 | 1.3 |
| 13 | 1111 0011 | 163.125 | 162.3 | -0.2 | -0.1 | 12.8 | 164.1 | -1.8 |
| 14 | 1111 0010 | 178.750 | 185.1 | -1.2 | -1.1 | 22.8 | 179.9 | 5.2 |
| 15 | 1111 0001 | 194.375 | 200.6 | -0.1 | 0.0 | 15.4 | 195.8 | 4.8 |
| 16 | 1111 0000 | 210.000 | 209.1 | 0.5 | 0.5 | 8.5 | 211.6 | -2.6 |
| 17 | 1110 1111 | 225.625 | 222.1 | -0.2 | 0.0 | 13.1 | 227.5 | -5.3 |
| 18 | 1110 1110 | 241.250 | 237.8 | -1.0 | -1.1 | 15.7 | 243.3 | -5.5 |
| 19 | 1110 1101 | 256.875 | 261.1 | -0.1 | -0.1 | 23.3 | 259.1 | 1.9 |
| 20 | 1110 1100 | 272.500 | 275.4 | 0.2 | 0.3 | 14.4 | 275.0 | 0.5 |
| 21 | 1110 1011 | 288.125 | 289.0 | 0.2 | 0.3 | 13.5 | 290.8 | -1.8 |
| 22 | 1110 1010 | 303.750 | 309.5 | -1.0 | -0.0 | 20.5 | 306.7 | 2.8 |
| 23 | 1110 1001 | 319.375 | 327.6 | 0.3 | 0.5 | 18.1 | 322.5 | 5.1 |
| 24 | 1110 1000 | 335.000 | 340.6 | 1.1 | -0.0 | 13.0 | 338.3 | 2.3 |
| 25 | 1110 0111 | 350.625 | 349.4 | 0.2 | 0.3 | 8.8 | 354.2 | -4.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 582

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14) NOV 30 81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 366.7 | -0.1 | 1.2 | 17.3 | 370.0 | -3.3 |
| 27 | 1110 0101 | 381.875 | 388.9 | -0.3 | -0.2 | 22.2 | 385.8 | 3.1 |
| 28 | 1110 0100 | 397.500 | 408.7 | -0.5 | -0.5 | 19.8 | 401.7 | 7.0 |
| 29 | 1110 0011 | 413.125 | 416.4 | 0.1 | 0.0 | 7.6 | 417.5 | -1.1 |
| 30 | 1110 0010 | 428.750 | 438.6 | 1.0 | 1.2 | 22.2 | 433.4 | 5.2 |
| 31 | 1110 0001 | 444.375 | 454.8 | 0.1 | -0.0 | 16.2 | 449.2 | 5.6 |
| 32 | 1110 0000 | 460.000 | 462.9 | 0.7 | 0.8 | 8.1 | 465.0 | -2.1 |
| 33 | 1101 1111 | 475.625 | 477.6 | -0.0 | -0.1 | 14.7 | 480.9 | -3.3 |
| 34 | 1101 1110 | 491.250 | 491.3 | 1.0 | 1.1 | 13.7 | 496.7 | -5.4 |
| 35 | 1101 1101 | 506.875 | 516.5 | 0.0 | 0.0 | 25.2 | 512.6 | 4.0 |
| 36 | 1101 1100 | 522.500 | 527.6 | 0.5 | 0.1 | 11.1 | 528.4 | -0.8 |
| 37 | 1101 1011 | 538.125 | 544.5 | -0.2 | -0.2 | 16.9 | 544.2 | 0.3 |
| 38 | 1101 1010 | 553.750 | 562.8 | 0.8 | -0.1 | 18.2 | 560.1 | 2.7 |
| 39 | 1101 1001 | 569.375 | 583.8 | -1.0 | -0.9 | 21.0 | 575.9 | 7.9 |
| 40 | 1101 1000 | 585.000 | 590.7 | -0.0 | 1.2 | 6.9 | 591.8 | -1.1 |
| 41 | 1101 0111 | 600.625 | 604.8 | -0.2 | -0.1 | 14.1 | 607.6 | -2.8 |
| 42 | 1101 0110 | 616.250 | 622.2 | -1.2 | -1.2 | 17.3 | 623.4 | -1.3 |
| 43 | 1101 0101 | 631.875 | 643.7 | 0.3 | 0.0 | 21.6 | 639.3 | 4.5 |
| 44 | 1101 0100 | 647.500 | 659.2 | 0.3 | 0.4 | 15.4 | 655.1 | 4.0 |
| 45 | 1101 0011 | 663.125 | 671.6 | -0.3 | 0.0 | 12.4 | 670.9 | 0.6 |
| 46 | 1101 0010 | 678.750 | 693.7 | -0.7 | -0.7 | 22.1 | 686.8 | 6.9 |
| 47 | 1101 0001 | 694.375 | 709.8 | -0.5 | 0.4 | 16.1 | 702.6 | 7.1 |
| 48 | 1101 0000 | 710.000 | 722.1 | 0.7 | 0.7 | 12.4 | 718.5 | 3.7 |
| 49 | 1100 1111 | 725.625 | 730.9 | 0.2 | 0.2 | 8.8 | 734.3 | -3.4 |
| 50 | 1100 1110 | 741.250 | 746.0 | -1.1 | -0.0 | 15.1 | 750.1 | -4.1 |
| 51 | 1100 1101 | 756.875 | 769.8 | -0.1 | -0.1 | 23.8 | 766.0 | 3.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 583

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)

HAC
TEST
S27

01 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 782.9 | 0.1 | 0.0 | 13.1 | 781.8 | 1.1 |
| 53 | 1100 1011 | 788.125 | 797.4 | 0.1 | 0.2 | 14.4 | 797.7 | -0.3 |
| 54 | 1100 1010 | 803.750 | 816.3 | 0.0 | 0.8 | 18.9 | 813.5 | 2.8 |
| 55 | 1100 1001 | 819.375 | 835.3 | 1.3 | 1.4 | 19.0 | 829.3 | 6.0 |
| 56 | 1100 1000 | 835.000 | 852.5 | -0.9 | -0.9 | 17.2 | 845.2 | 7.4 |
| 57 | 1100 0111 | 850.625 | 857.4 | 0.1 | -0.0 | 4.8 | 861.0 | -3.6 |
| 58 | 1100 0110 | 866.250 | 873.9 | 1.0 | 1.0 | 16.5 | 876.9 | -3.0 |
| 59 | 1100 0101 | 881.875 | 896.6 | -0.4 | 0.0 | 22.7 | 897.7 | 3.9 |
| 60 | 1100 0100 | 897.500 | 916.1 | -0.1 | -0.1 | 19.5 | 908.5 | 7.5 |
| 61 | 1100 0011 | 913.125 | 923.9 | -0.1 | -0.3 | 7.8 | 924.4 | -0.5 |
| 62 | 1100 0010 | 928.750 | 945.0 | 1.5 | 1.4 | 21.2 | 940.2 | 4.8 |
| 63 | 1100 0001 | 944.375 | 962.7 | -1.5 | -1.5 | 17.7 | 956.0 | 6.7 |
| 64 | 1100 0000 | 960.000 | 973.9 | -0.8 | -0.0 | 11.2 | 971.9 | 2.1 |
| | | | | | | | | |
| 65 | 1011 1111 | 975.625 | 985.6 | -0.1 | -0.1 | 11.7 | 987.7 | -2.1 |
| 66 | 1011 1110 | 991.250 | 999.4 | 1.1 | 0.1 | 13.7 | 1003.6 | -4.2 |
| 67 | 1011 1101 | 1006.88 | 1024.7 | 0.3 | 0.4 | 25.3 | 1019.4 | 5.3 |
| 68 | 1011 1100 | 1022.50 | 1035.1 | 0.5 | 1.0 | 10.4 | 1035.2 | -0.2 |
| 69 | 1011 1011 | 1038.13 | 1052.1 | -0.3 | -0.2 | 17.0 | 1051.1 | 1.0 |
| 70 | 1011 1010 | 1053.75 | 1071.8 | -1.2 | -1.0 | 19.7 | 1066.9 | 4.9 |
| 71 | 1011 1001 | 1069.38 | 1090.7 | 0.1 | 0.1 | 18.9 | 1082.8 | 8.0 |
| 72 | 1011 1000 | 1085.00 | 1094.4 | 1.4 | 1.2 | 3.6 | 1098.6 | -4.2 |
| 73 | 1011 0111 | 1100.63 | 1111.9 | -0.2 | -0.1 | 17.5 | 1114.4 | -2.6 |
| 74 | 1011 0110 | 1116.25 | 1128.9 | -0.8 | -0.9 | 17.0 | 1130.3 | -1.4 |
| 75 | 1011 0101 | 1131.88 | 1150.6 | -0.0 | 0.4 | 21.7 | 1146.1 | 4.5 |
| 76 | 1011 0100 | 1147.50 | 1164.8 | 0.6 | 0.6 | 14.1 | 1162.0 | 2.8 |
| 77 | 1011 0011 | 1163.13 | 1178.0 | 0.3 | 0.3 | 13.2 | 1177.8 | 0.2 |
| 78 | 1011 0010 | 1178.75 | 1200.7 | -0.7 | 0.0 | 22.7 | 1193.6 | 7.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 584

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)

HAC
TEST
S27

NOV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER UPPER | POINT | | DEVIATION | |
| 79 | 1011 0001 | 1194.38 | 1216.8 | -0.0 | -0.0 | 16.0 | 1209.5 | 7.3 |
| 80 | 1011 0000 | 1210.00 | 1227.8 | 0.6 | 0.0 | 11.0 | 1225.3 | 2.5 |
| 81 | 1010 1111 | 1225.63 | 1237.2 | 0.1 | 0.1 | 9.4 | 1241.1 | -3.9 |
| 82 | 1010 1110 | 1241.25 | 1251.2 | 0.0 | 1.2 | 13.9 | 1257.0 | -5.8 |
| 83 | 1010 1101 | 1256.88 | 1276.6 | -0.3 | -0.3 | 25.4 | 1272.8 | 3.8 |
| 84 | 1010 1100 | 1272.50 | 1290.2 | -0.6 | -0.7 | 13.6 | 1288.7 | 1.5 |
| 85 | 1010 1011 | 1288.13 | 1303.4 | 0.2 | 0.0 | 13.2 | 1304.5 | -1.1 |
| 86 | 1010 1010 | 1303.75 | 1322.5 | 1.1 | 1.1 | 19.1 | 1320.3 | 2.1 |
| 87 | 1010 1001 | 1319.38 | 1342.1 | -0.2 | -0.0 | 19.6 | 1336.2 | 5.9 |
| 88 | 1010 1000 | 1335.00 | 1355.5 | -1.0 | -1.1 | 13.4 | 1352.0 | 3.5 |
| 89 | 1010 0111 | 1350.63 | 1363.0 | 0.0 | -0.1 | 7.5 | 1367.9 | -4.8 |
| 90 | 1010 0110 | 1366.25 | 1379.6 | 1.1 | 1.1 | 16.6 | 1383.7 | -4.1 |
| 91 | 1010 0101 | 1381.88 | 1401.8 | -0.3 | -0.4 | 22.2 | 1399.5 | 2.3 |
| 92 | 1010 0100 | 1397.50 | 1420.7 | -0.6 | -0.0 | 18.9 | 1415.4 | 5.4 |
| 93 | 1010 0011 | 1413.13 | 1429.5 | -0.3 | -0.3 | 8.7 | 1431.2 | -1.7 |
| 94 | 1010 0010 | 1428.75 | 1452.4 | 0.6 | -0.0 | 22.9 | 1447.1 | 5.3 |
| 95 | 1010 0001 | 1444.38 | 1467.8 | -0.0 | 0.0 | 15.4 | 1462.9 | 5.0 |
| 96 | 1010 0000 | 1460.00 | 1480.6 | -0.0 | 0.0 | 12.7 | 1478.7 | 1.8 |
| 97 | 1001 1111 | 1475.63 | 1490.1 | -0.1 | 3.3 | 9.6 | 1494.6 | -4.4 |
| 98 | 1001 1110 | 1491.25 | 1504.1 | -1.1 | -1.1 | 13.9 | 1510.4 | -6.3 |
| 99 | 1001 1101 | 1506.88 | 1528.8 | 0.3 | 0.0 | 24.8 | 1526.2 | 2.6 |
| 100 | 1001 1100 | 1522.50 | 1538.4 | 0.9 | 0.8 | 9.5 | 1542.1 | -3.7 |
| 101 | 1001 1011 | 1538.13 | 1556.3 | -0.4 | 0.0 | 17.9 | 1557.9 | -1.7 |
| 102 | 1001 1010 | 1553.75 | 1575.4 | -1.0 | -1.0 | 19.2 | 1573.8 | 1.7 |
| 103 | 1001 1001 | 1569.38 | 1594.4 | -0.1 | -0.1 | 18.9 | 1589.6 | 4.8 |
| 104 | 1001 1000 | 1585.00 | 1600.7 | 1.1 | 1.1 | 6.3 | 1605.4 | -4.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 585

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)



27 30 78

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 105 | 1001 0111 | 1600.63 | 1616.0 -0.0 0.1 | 15.3 | 1621.3 -5.3 |
| 106 | 1001 0110 | 1616.25 | 1632.5 -1.1 -0.1 | 16.5 | 1637.1 -4.6 |
| 107 | 1001 0101 | 1631.88 | 1653.5 0.1 1.5 | 21.0 | 1653.0 0.5 |
| 108 | 1001 0100 | 1647.50 | 1668.3 0.7 0.1 | 14.8 | 1668.8 -0.5 |
| 109 | 1001 0011 | 1663.13 | 1681.6 0.5 0.3 | 13.3 | 1684.6 -3.0 |
| 110 | 1001 0010 | 1678.75 | 1703.3 -0.3 0.7 | 21.6 | 1700.5 2.8 |
| 111 | 1001 0001 | 1694.38 | 1720.1 -0.2 -0.2 | 16.8 | 1716.3 3.8 |
| 112 | 1001 0000 | 1710.00 | 1736.7 -0.8 -0.8 | 16.5 | 1732.2 4.5 |
| 113 | 1000 1111 | 1725.63 | 1744.6 0.4 0.0 | 8.0 | 1748.0 -3.4 |
| 114 | 1000 1110 | 1741.25 | 1754.4 1.1 1.1 | 9.8 | 1763.8 -9.4 |
| 115 | 1000 1101 | 1756.88 | 1780.4 -0.3 -0.0 | 25.9 | 1779.7 0.7 |
| 116 | 1000 1100 | 1772.50 | 1793.7 -0.3 -0.3 | 13.3 | 1795.5 -1.9 |
| 117 | 1000 1011 | 1789.13 | 1807.5 -0.1 -0.2 | 13.9 | 1811.3 -3.8 |
| 118 | 1000 1010 | 1803.75 | 1825.8 0.9 0.9 | 18.3 | 1827.2 -1.4 |
| 119 | 1000 1001 | 1819.38 | 1845.2 0.1 0.1 | 19.3 | 1843.0 2.1 |
| 120 | 1000 1000 | 1835.00 | 1862.3 -1.0 -0.0 | 17.1 | 1858.9 3.4 |
| 121 | 1000 0111 | 1850.63 | 1867.2 -0.0 0.0 | 4.9 | 1874.7 -7.5 |
| 122 | 1000 0110 | 1866.25 | 1882.7 1.1 -0.1 | 15.5 | 1890.5 -7.8 |
| 123 | 1000 0101 | 1881.88 | 1904.5 0.2 0.2 | 21.8 | 1906.4 -1.8 |
| 124 | 1000 0100 | 1897.50 | 1924.3 0.0 0.6 | 19.7 | 1922.2 2.0 |
| 125 | 1000 0011 | 1913.13 | 1933.2 -0.3 -0.3 | 8.9 | 1938.1 -4.9 |
| 126 | 1000 0010 | 1928.75 | 1955.8 -0.6 -0.6 | 22.6 | 1953.9 1.9 |
| 127 | 1000 0001 | 1944.38 | 1970.7 0.2 0.0 | 14.9 | 1969.7 1.0 |
| 128 | 1000 0000 | 1960.00 | 1988.7 0.2 0.3 | 18.0 | 1985.6 3.1 |
| 129 | 0111 1111 | 1975.63 | 1996.2 -0.3 -0.0 | 7.5 | 2001.4 -5.2 |
| 130 | 0111 1110 | 1991.25 | 2012.4 -1.0 -1.0 | 16.1 | 2017.3 -4.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 586

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14) NOV 30 '81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2036.6 | -0.0 | -0.4 | 24.2 | 2033.1 | 3.5 |
| 132 | 0111 1100 | 2022.50 | 2049.5 | 0.0 | 0.1 | 12.9 | 2048.9 | 3.6 |
| 133 | 0111 1011 | 2038.13 | 2062.6 | 0.3 | 0.3 | 13.1 | 2064.8 | -2.2 |
| 134 | 0111 1010 | 2053.75 | 2085.0 | -1.0 | -0.0 | 22.4 | 2080.6 | 4.4 |
| 135 | 0111 1001 | 2069.38 | 2102.8 | -0.3 | -0.3 | 17.7 | 2096.4 | 6.3 |
| 136 | 0111 1000 | 2085.00 | 2106.5 | 0.9 | -0.1 | 3.8 | 2112.3 | -5.8 |
| 137 | 0111 0111 | 2100.63 | 2122.1 | 0.3 | 0.3 | 15.6 | 2128.1 | -6.0 |
| 138 | 0111 0110 | 2116.25 | 2139.8 | -0.0 | 1.2 | 17.7 | 2144.0 | -4.1 |
| 139 | 0111 0101 | 2131.88 | 2162.4 | 0.2 | 0.1 | 22.6 | 2159.8 | 2.6 |
| 140 | 0111 0100 | 2147.50 | 2179.4 | -0.6 | -0.5 | 17.0 | 2175.6 | 3.8 |
| 141 | 0111 0011 | 2163.13 | 2188.8 | 0.3 | -0.1 | 9.3 | 2191.5 | -2.7 |
| 142 | 0111 0010 | 2178.75 | 2213.2 | 0.6 | 0.6 | 24.4 | 2207.3 | 5.8 |
| 143 | 0111 0001 | 2194.38 | 2228.8 | -0.3 | -0.2 | 15.7 | 2223.2 | 5.7 |
| 144 | 0111 0000 | 2210.00 | 2238.2 | -0.7 | -0.7 | 9.4 | 2239.0 | -0.8 |
| 145 | 0110 1111 | 2225.63 | 2247.9 | -0.0 | -0.3 | 9.7 | 2254.8 | -6.9 |
| 146 | 0110 1110 | 2241.25 | 2263.1 | 1.1 | 1.1 | 15.2 | 2270.7 | -7.6 |
| 147 | 0110 1101 | 2256.88 | 2287.8 | 0.5 | 0.6 | 24.7 | 2266.5 | 1.3 |
| 148 | 0110 1100 | 2272.50 | 2305.5 | -0.1 | 0.0 | 17.6 | 2302.4 | 3.1 |
| 149 | 0110 1011 | 2288.13 | 2314.4 | -0.4 | -0.4 | 9.0 | 2318.2 | -3.8 |
| 150 | 0110 1010 | 2303.75 | 2335.7 | 1.0 | -0.0 | 21.3 | 2334.0 | 1.7 |
| 151 | 0110 1001 | 2319.38 | 2353.8 | 0.3 | 0.3 | 18.1 | 2349.9 | 4.0 |
| 152 | 0110 1000 | 2335.00 | 2367.6 | -0.2 | 1.2 | 13.8 | 2365.7 | 1.9 |
| 153 | 0110 0111 | 2350.63 | 2373.9 | -0.4 | -0.4 | 6.4 | 2381.5 | -7.6 |
| 154 | 0110 0110 | 2366.25 | 2397.6 | -1.1 | -1.1 | 18.7 | 2397.4 | -4.7 |
| 155 | 0110 0101 | 2381.88 | 2414.0 | -0.4 | -0.3 | 21.3 | 2413.2 | 0.7 |
| 156 | 0110 0100 | 2397.50 | 2434.3 | 0.6 | 0.5 | 20.3 | 2429.1 | 5.2 |
| 157 | 0110 0011 | 2413.13 | 2440.0 | -0.1 | 0.3 | 5.8 | 2444.9 | -4.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 587

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)



BY 30

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 158 | 0110 0010 | 2428.75 | 2466.2 -0.4 -0.4 | 26.2 | 2460.7 5.5 |
| 159 | 0110 0001 | 2444.36 | 2480.1 -0.1 -0.3 | 13.9 | 2476.6 3.5 |
| 160 | 0110 0000 | 2460.00 | 2489.1 -0.1 0.0 | 9.0 | 2492.4 -3.4 |
| 161 | 0101 1111 | 2475.63 | 2500.6 -0.0 0.1 | 11.5 | 2508.3 -7.7 |
| 162 | 0101 1110 | 2491.25 | 2516.2 -1.1 0.0 | 15.6 | 2524.1 -7.9 |
| 163 | 0101 1101 | 2506.88 | 2540.7 -0.0 0.0 | 24.5 | 2539.9 0.7 |
| 164 | 0101 1100 | 2522.50 | 2554.2 0.1 -0.0 | 13.5 | 2555.8 -1.6 |
| 165 | 0101 1011 | 2538.13 | 2566.9 0.3 0.4 | 12.7 | 2571.6 -4.7 |
| 166 | 0101 1010 | 2553.75 | 2587.8 0.0 1.1 | 21.0 | 2587.5 0.4 |
| 167 | 0101 1001 | 2569.38 | 2606.8 -0.4 -0.3 | 18.9 | 2603.3 3.5 |
| 168 | 0101 1000 | 2585.00 | 2614.0 -0.6 -1.1 | 7.2 | 2619.1 -5.1 |
| 169 | 0101 0111 | 2600.63 | 2626.6 0.2 -0.0 | 12.6 | 2635.0 -8.4 |
| 170 | 0101 0110 | 2616.25 | 2643.6 1.1 1.0 | 17.0 | 2650.8 -7.2 |
| 171 | 0101 0101 | 2631.88 | 2666.3 1.0 0.1 | 22.7 | 2666.6 -0.4 |
| 172 | 0101 0100 | 2647.50 | 2683.9 -0.6 -0.6 | 17.6 | 2682.5 1.4 |
| 173 | 0101 0011 | 2663.13 | 2693.4 0.0 -0.4 | 9.5 | 2698.3 -4.9 |
| 174 | 0101 0010 | 2678.75 | 2716.8 0.7 0.7 | 23.4 | 2714.2 2.7 |
| 175 | 0101 0001 | 2694.38 | 2732.5 0.4 0.4 | 15.6 | 2730.0 2.5 |
| 176 | 0101 0000 | 2710.00 | 2746.7 -0.6 0.2 | 14.2 | 2745.8 0.8 |
| 177 | 0100 1111 | 2725.63 | 2757.6 -0.4 -0.4 | 10.9 | 2761.7 -4.1 |
| 178 | 0100 1110 | 2741.25 | 2766.6 1.4 0.0 | 9.0 | 2777.5 -10.9 |
| 179 | 0100 1101 | 2756.88 | 2792.3 0.5 0.5 | 25.7 | 2793.4 -1.1 |
| 180 | 0100 1100 | 2772.50 | 2810.1 -0.0 0.3 | 17.8 | 2809.2 1.0 |
| 181 | 0100 1011 | 2788.13 | 2818.8 -0.4 -0.4 | 8.7 | 2825.0 -6.2 |
| 182 | 0100 1010 | 2803.75 | 2839.1 0.0 0.0 | 20.3 | 2840.9 -1.7 |
| 183 | 0100 1001 | 2819.38 | 2857.9 0.3 0.0 | 18.8 | 2856.7 1.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 588

1981/11/30 15:12:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)

HAC
TEST
527

0307

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 11 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2874.8 | 0.8 | 0.7 | 16.9 | 2872.6 | 2.3 |
| 185 | 0100 0111 | 2850.63 | 2878.6 | -0.3 | 0.0 | 3.7 | 2888.4 | -9.8 |
| 186 | 0100 0110 | 2866.25 | 2896.4 | -1.1 | -1.1 | 17.9 | 2904.2 | -7.8 |
| 187 | 0100 0101 | 2881.88 | 2917.7 | -0.1 | -0.3 | 21.3 | 2920.1 | -2.3 |
| 188 | 0100 0100 | 2897.50 | 2939.1 | 0.1 | 0.3 | 21.3 | 2935.9 | 3.2 |
| 189 | 0100 0011 | 2913.13 | 2944.6 | 0.5 | 0.5 | 5.5 | 2951.7 | -7.1 |
| 190 | 0100 0010 | 2928.75 | 2968.3 | -0.0 | 2.1 | 23.6 | 2967.6 | 0.7 |
| 191 | 0100 0001 | 2944.38 | 2984.3 | -0.1 | -0.2 | 16.0 | 2983.4 | 0.9 |
| 192 | 0100 0000 | 2960.00 | 3000.6 | 0.6 | -0.6 | 16.3 | 2999.3 | 1.3 |
| 193 | 0011 1111 | 2975.63 | 3006.7 | 0.1 | 0.2 | 6.1 | 3015.1 | -8.4 |
| 194 | 0011 1110 | 2991.25 | 3021.5 | 0.0 | 1.1 | 14.8 | 3030.9 | -9.5 |
| 195 | 0011 1101 | 3006.88 | 3048.1 | -0.6 | -0.4 | 26.7 | 3046.8 | 1.3 |
| 196 | 0011 1100 | 3022.50 | 3059.9 | -0.2 | -0.1 | 11.8 | 3062.6 | -2.7 |
| 197 | 0011 1011 | 3038.13 | 3073.2 | 0.4 | 0.0 | 13.3 | 3078.5 | -5.2 |
| 198 | 0011 1010 | 3053.75 | 3095.2 | 0.7 | 0.7 | 22.0 | 3094.3 | 0.9 |
| 199 | 0011 1001 | 3069.38 | 3114.1 | -0.7 | -0.0 | 18.8 | 3110.1 | 4.0 |
| 200 | 0011 1000 | 3085.00 | 3117.5 | -1.1 | -1.3 | 3.4 | 3126.0 | -8.5 |
| 201 | 0011 0111 | 3100.63 | 3133.6 | 0.0 | 0.0 | 16.1 | 3141.8 | -8.2 |
| 202 | 0011 0110 | 3116.25 | 3150.8 | 1.0 | 1.1 | 17.2 | 3157.7 | -6.8 |
| 203 | 0011 0101 | 3131.88 | 3174.9 | 0.4 | 0.4 | 24.1 | 3173.5 | 1.4 |
| 204 | 0011 0100 | 3147.50 | 3190.3 | -0.7 | -0.1 | 15.3 | 3189.3 | 0.9 |
| 205 | 0011 0011 | 3163.13 | 3200.9 | -0.6 | -0.6 | 10.6 | 3205.2 | -4.3 |
| 206 | 0011 0010 | 3178.75 | 3224.5 | 1.2 | -0.0 | 23.6 | 3221.0 | 3.5 |
| 207 | 0011 0001 | 3194.38 | 3240.6 | 0.3 | 0.4 | 16.1 | 3236.8 | 3.8 |
| 208 | 0011 0000 | 3210.00 | 3252.8 | -0.3 | 0.1 | 12.2 | 3252.7 | 0.1 |
| 209 | 0010 1111 | 3225.63 | 3260.2 | -0.5 | -0.2 | 7.3 | 3268.5 | -8.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 589
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HAC
TFST
527

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)

W 30 99

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3276.1 | -1.2 | -1.2 | 15.9 | 3284.4 | -8.2 |
| 211 | 0010 1101 | 3256.88 | 3301.0 | 0.6 | 0.0 | 24.9 | 3300.2 | 0.8 |
| 212 | 0010 1100 | 3272.50 | 3317.1 | 0.6 | 0.7 | 16.1 | 3316.0 | 1.1 |
| 213 | 0010 1011 | 3288.13 | 3327.1 | -0.4 | 0.1 | 10.0 | 3331.9 | -4.7 |
| 214 | 0010 1010 | 3303.75 | 3350.0 | -0.9 | -0.9 | 22.9 | 3347.7 | 2.3 |
| 215 | 0010 1001 | 3319.38 | 3367.6 | -0.2 | -0.3 | 17.6 | 3363.6 | 4.1 |
| 216 | 0010 1000 | 3335.00 | 3380.8 | 0.9 | 1.0 | 13.2 | 3379.4 | 1.4 |
| 217 | 0010 0111 | 3350.63 | 3387.8 | 0.0 | 0.0 | 7.0 | 3395.2 | -7.4 |
| 218 | 0010 0110 | 3366.25 | 3405.9 | -1.2 | 0.0 | 18.1 | 3411.1 | -5.2 |
| 219 | 0010 0101 | 3381.88 | 3428.7 | -0.0 | 0.2 | 22.8 | 3426.9 | 1.7 |
| 220 | 0010 0100 | 3397.50 | 3447.4 | 0.7 | 0.1 | 18.8 | 3442.8 | 4.7 |
| 221 | 0010 0011 | 3413.13 | 3454.3 | 0.4 | 0.5 | 6.8 | 3458.6 | -4.3 |
| 222 | 0010 0010 | 3428.75 | 3479.6 | -0.1 | 0.6 | 25.3 | 3474.4 | 5.1 |
| 223 | 0010 0001 | 3444.38 | 3494.8 | -0.3 | -0.1 | 15.2 | 3490.3 | 4.5 |
| 224 | 0010 0000 | 3460.00 | 3508.2 | -0.1 | 0.1 | 13.4 | 3506.1 | 2.1 |
| 225 | 0001 1111 | 3475.63 | 3515.7 | 0.2 | -0.1 | 7.5 | 3521.9 | -6.2 |
| 226 | 0001 1110 | 3491.25 | 3530.0 | 1.0 | 5.0 | 14.3 | 3537.8 | -7.8 |
| 227 | 0001 1101 | 3506.88 | 3557.0 | -0.4 | -0.1 | 27.0 | 3553.6 | 3.4 |
| 228 | 0001 1100 | 3522.50 | 3569.2 | -0.1 | -0.1 | 12.2 | 3569.5 | -0.2 |
| 229 | 0001 1011 | 3538.13 | 3583.0 | 0.3 | -0.3 | 13.7 | 3585.3 | -2.3 |
| 230 | 0001 1010 | 3553.75 | 3604.2 | 0.4 | 0.8 | 21.2 | 3601.1 | 3.1 |
| 231 | 0001 1001 | 3569.38 | 3623.0 | 0.3 | 0.5 | 18.8 | 3617.0 | 6.0 |
| 232 | 0001 1000 | 3585.00 | 3629.8 | -1.3 | 0.0 | 6.8 | 3632.8 | -3.0 |
| 233 | 0001 0111 | 3600.63 | 3643.8 | -0.3 | -0.3 | 13.9 | 3648.7 | -4.9 |
| 234 | 0001 0110 | 3616.25 | 3660.1 | 1.2 | -0.1 | 16.3 | 3664.5 | -4.4 |
| 235 | 0001 0101 | 3631.88 | 3685.2 | -1.6 | 0.6 | 25.1 | 3680.3 | 4.9 |
| 236 | 0001 0100 | 3647.50 | 3699.9 | -0.1 | 0.6 | 14.7 | 3696.2 | 3.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 590

1981/11/30 15:12:08 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14) HAC
TEST
S27
REV 10 74

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3711.2 | -0.3 | -0.5 | 11.3 | 3712.0 | -0.8 |
| 238 | 0001 0010 | 3678.75 | 3736.1 | -1.4 | -1.4 | 24.9 | 3727.9 | 8.2 |
| 239 | 0001 0001 | 3694.38 | 3751.2 | 0.2 | 0.0 | 15.1 | 3743.7 | 7.5 |
| 240 | 0001 0000 | 3710.00 | 3767.9 | 0.6 | 0.7 | 16.8 | 3759.5 | 8.4 |
| 241 | 0000 1111 | 3725.63 | 3777.0 | -0.3 | 0.0 | 9.1 | 3775.4 | 1.7 |
| 242 | 0000 1110 | 3741.25 | 3786.6 | -1.0 | -1.1 | 9.6 | 3791.2 | -4.6 |
| 243 | 0000 1101 | 3756.88 | 3812.9 | -0.1 | -0.6 | 26.2 | 3807.0 | 5.8 |
| 244 | 0000 1100 | 3772.50 | 3829.3 | 0.1 | 0.2 | 16.4 | 3822.9 | 6.4 |
| 245 | 0000 1011 | 3788.13 | 3838.6 | 0.4 | 0.4 | 9.3 | 3838.7 | -0.1 |
| 246 | 0000 1010 | 3803.75 | 3861.1 | -1.0 | 0.1 | 22.5 | 3854.6 | 6.5 |
| 247 | 0000 1001 | 3819.38 | 3879.1 | -0.7 | 1.7 | 18.0 | 3870.4 | 8.7 |
| 248 | 0000 1000 | 3835.00 | 3895.6 | 0.2 | 0.0 | 16.4 | 3886.2 | 9.3 |
| 249 | 0000 0111 | 3850.63 | 3899.6 | 0.2 | 0.3 | 4.1 | 3902.1 | -2.4 |
| 250 | 0000 0110 | 3866.25 | 3916.1 | 0.0 | 1.3 | 16.4 | 3917.9 | -1.8 |
| 251 | 0000 0101 | 3881.88 | 3942.0 | -0.8 | -0.6 | 25.9 | 3933.8 | 8.2 |
| 252 | 0000 0100 | 3897.50 | 3960.6 | -0.2 | -0.3 | 18.6 | 3949.6 | 11.0 |
| 253 | 0000 0011 | 3913.13 | 3966.8 | 0.4 | 0.2 | 6.3 | 3965.4 | 1.4 |
| 254 | 0000 0010 | 3928.75 | 3991.8 | 0.5 | 0.6 | 25.0 | 3981.3 | 10.5 |
| 255 | 0000 0001 | 3944.38 | 4007.6 | -0.7 | -0.0 | 15.8 | 3997.1 | 10.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 591
 1981/11/30 15:18:31 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)
 S U M M A R Y



REV 30 71

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.859X - 37.3MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.498X
 OFFSET IS: -37.3MV
 COEFFICIENT OF DETERMINATION IS: $R^{*2} = .99998420$
 ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.632MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 27.2MV | 243 | 5.927MV | 1.1MV | 241 | 5.789MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 2.1MV | 214 | -0.020MV | -2.0MV | 201 | .384MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 5.3MV | 153 | 0.100MV | -0.7MV | 58 | .575MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 592

1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)



REV 30 78

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION | |
|--|------------------------|---|--|--|------------------------------------|---|--|
|--|------------------------|---|--|--|------------------------------------|---|--|

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -28.6 | -0.9 | 1.2 | | -21.5 | -7.1 |
| 2 | 1111 1110 | -8.750 | -13.9 | -0.5 | -0.5 | 14.6 | -5.6 | -8.3 |
| 3 | 1111 1101 | 6.875 | 10.5 | 0.1 | 0.2 | 24.4 | 10.2 | 0.3 |
| 4 | 1111 1100 | 22.500 | 23.5 | 0.0 | 0.0 | 13.0 | 26.1 | -2.6 |
| 5 | 1111 1011 | 38.125 | 38.8 | -0.3 | -0.0 | 15.3 | 42.0 | -3.1 |
| 6 | 1111 1010 | 53.750 | 57.9 | -0.5 | -0.4 | 19.0 | 57.8 | 0.1 |
| 7 | 1111 1001 | 69.375 | 77.9 | -0.2 | -0.2 | 20.0 | 73.7 | 4.2 |
| 8 | 1111 1000 | 85.000 | 82.5 | 0.5 | 0.4 | 4.6 | 89.5 | -7.0 |
| 9 | 1111 0111 | 100.625 | 99.2 | 0.2 | 0.3 | 16.7 | 105.4 | -6.2 |
| 10 | 1111 0110 | 116.250 | 116.5 | -0.5 | -0.4 | 17.2 | 121.2 | -4.8 |
| 11 | 1111 0101 | 131.875 | 138.8 | -0.3 | -0.1 | 22.3 | 137.1 | 1.7 |
| 12 | 1111 0100 | 147.500 | 154.9 | -0.1 | 0.0 | 16.1 | 153.0 | 2.0 |
| 13 | 1111 0011 | 163.125 | 166.5 | 0.2 | 0.2 | 11.6 | 168.8 | -2.3 |
| 14 | 1111 0010 | 178.750 | 188.0 | -0.1 | 0.4 | 21.5 | 184.7 | 3.3 |
| 15 | 1111 0001 | 194.375 | 205.5 | -0.2 | -0.1 | 17.5 | 200.5 | 4.9 |
| 16 | 1111 0000 | 210.000 | 215.5 | -0.1 | -0.1 | 10.0 | 216.4 | -0.9 |
| 17 | 1110 1111 | 225.625 | 226.6 | 0.1 | 1.0 | 11.1 | 232.3 | -5.7 |
| 18 | 1110 1110 | 241.250 | 240.9 | 0.4 | 0.5 | 14.4 | 248.1 | -7.2 |
| 19 | 1110 1101 | 256.875 | 265.8 | -0.2 | 0.1 | 24.9 | 264.0 | 1.9 |
| 20 | 1110 1100 | 272.500 | 281.4 | 0.0 | 0.1 | 15.6 | 279.8 | 1.6 |
| 21 | 1110 1011 | 288.125 | 293.8 | -0.1 | -0.2 | 12.3 | 295.7 | -1.9 |
| 22 | 1110 1010 | 303.750 | 312.8 | 0.3 | 0.4 | 19.0 | 311.6 | 1.3 |
| 23 | 1110 1001 | 319.375 | 332.6 | 0.0 | 0.2 | 19.8 | 327.4 | 5.2 |
| 24 | 1110 1000 | 335.000 | 345.5 | -0.5 | -0.4 | 12.8 | 343.3 | 2.2 |
| 25 | 1110 0111 | 350.625 | 354.3 | -0.2 | -0.1 | 8.8 | 359.1 | -4.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 593

1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)

HAC
TEST
527

NO 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 371.2 | 0.4 | -0.1 | 16.9 | 375.0 | -3.8 |
| 27 | 1110 0101 | 381.875 | 393.6 | 0.1 | 0.2 | 22.3 | 390.9 | 2.7 |
| 28 | 1110 0100 | 397.500 | 413.3 | -0.0 | 0.2 | 19.7 | 406.7 | 6.6 |
| 29 | 1110 0011 | 413.125 | 421.3 | -0.1 | -0.1 | 8.0 | 422.6 | -1.2 |
| 30 | 1110 0010 | 428.750 | 443.3 | -0.4 | -0.4 | 22.0 | 438.4 | 4.9 |
| 31 | 1110 0001 | 444.375 | 459.9 | -0.1 | 0.1 | 16.6 | 454.3 | 5.6 |
| 32 | 1110 0000 | 460.000 | 466.9 | 0.3 | 0.4 | 7.0 | 470.1 | -3.3 |
| 33 | 1101 1111 | 475.625 | 482.7 | 0.0 | 0.5 | 15.8 | 486.0 | -3.3 |
| 34 | 1101 1110 | 491.250 | 496.5 | -0.6 | -0.4 | 13.8 | 501.9 | -5.3 |
| 35 | 1101 1101 | 506.875 | 521.9 | -0.2 | -0.2 | 25.3 | 517.7 | 4.2 |
| 36 | 1101 1100 | 522.500 | 534.1 | 0.0 | 0.1 | 12.2 | 533.6 | 0.5 |
| 37 | 1101 1011 | 538.125 | 549.3 | 0.2 | 0.2 | 15.2 | 549.4 | -0.2 |
| 38 | 1101 1010 | 553.750 | 568.0 | -0.5 | -0.4 | 18.8 | 565.3 | 2.7 |
| 39 | 1101 1001 | 569.375 | 588.3 | -0.2 | -0.0 | 20.2 | 581.2 | 7.1 |
| 40 | 1101 1000 | 585.000 | 595.7 | 0.3 | -0.1 | 7.4 | 597.0 | -1.3 |
| 41 | 1101 0111 | 600.625 | 609.8 | 0.1 | 0.1 | 14.1 | 612.9 | -3.1 |
| 42 | 1101 0110 | 616.250 | 626.0 | -0.1 | 0.4 | 16.2 | 628.7 | -2.7 |
| 43 | 1101 0101 | 631.875 | 649.4 | -0.2 | -0.2 | 23.3 | 644.6 | 4.8 |
| 44 | 1101 0100 | 647.500 | 664.9 | -0.1 | 0.0 | 15.6 | 660.5 | 4.5 |
| 45 | 1101 0011 | 663.125 | 676.5 | 0.2 | 0.3 | 11.6 | 676.3 | 0.2 |
| 46 | 1101 0010 | 678.750 | 697.6 | 0.2 | 0.3 | 21.1 | 692.2 | 5.4 |
| 47 | 1101 0001 | 694.375 | 714.9 | -0.1 | 0.1 | 17.3 | 708.0 | 6.8 |
| 48 | 1101 0000 | 710.000 | 729.5 | -0.1 | -0.1 | 14.6 | 723.9 | 5.6 |
| 49 | 1100 1111 | 725.625 | 736.6 | -0.0 | 0.5 | 7.0 | 739.8 | -3.2 |
| 50 | 1100 1110 | 741.250 | 749.9 | 0.6 | 0.6 | 13.3 | 755.6 | -5.7 |
| 51 | 1100 1101 | 756.875 | 775.4 | 0.2 | 0.3 | 25.5 | 771.5 | 3.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 594

1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15) 00 30 01

HAC
TEST
S27

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 788.9 | -0.0 | 0.0 | 13.6 | 787.3 | 1.6 |
| 53 | 1100 1011 | 788.125 | 802.9 | -0.5 | -0.4 | 14.0 | 803.2 | -0.2 |
| 54 | 1100 1010 | 803.750 | 821.7 | 0.2 | -0.0 | 18.7 | 819.0 | 2.6 |
| 55 | 1100 1001 | 819.375 | 841.1 | 0.0 | 0.2 | 19.4 | 834.9 | 6.2 |
| 56 | 1100 1000 | 835.000 | 856.7 | 0.0 | 0.3 | 15.6 | 850.8 | 5.9 |
| 57 | 1100 0111 | 850.625 | 862.9 | -0.0 | 0.0 | 6.2 | 866.6 | -3.7 |
| 58 | 1100 0110 | 866.250 | 879.6 | -0.7 | -0.7 | 16.7 | 882.5 | -2.9 |
| 59 | 1100 0101 | 881.875 | 902.1 | -0.2 | 0.2 | 22.4 | 898.3 | 3.7 |
| 60 | 1100 0100 | 897.500 | 921.9 | 0.0 | 0.1 | 19.8 | 914.2 | 7.7 |
| 61 | 1100 0011 | 913.125 | 929.5 | -0.3 | 0.0 | 7.5 | 930.1 | -0.6 |
| 62 | 1100 0010 | 928.750 | 950.8 | -0.5 | -0.4 | 21.4 | 945.9 | 4.9 |
| 63 | 1100 0001 | 944.375 | 967.2 | 0.0 | 0.0 | 16.3 | 961.8 | 5.4 |
| 64 | 1100 0000 | 960.000 | 979.4 | 0.0 | 0.1 | 12.2 | 977.6 | 1.8 |
| 65 | 1011 1111 | 975.625 | 995.0 | 0.2 | 0.2 | 15.5 | 993.5 | 1.5 |
| 66 | 1011 1110 | 991.250 | 1005.5 | -0.5 | -0.5 | 10.5 | 1009.4 | -3.8 |
| 67 | 1011 1101 | 1006.88 | 1031.0 | -0.3 | -0.3 | 25.5 | 1025.2 | 5.8 |
| 68 | 1011 1100 | 1022.50 | 1042.5 | 0.2 | 0.0 | 11.4 | 1041.1 | 1.4 |
| 69 | 1011 1011 | 1038.13 | 1057.8 | 0.3 | 0.3 | 15.3 | 1056.9 | 0.9 |
| 70 | 1011 1010 | 1053.75 | 1076.6 | -0.1 | 0.0 | 18.8 | 1072.8 | 3.8 |
| 71 | 1011 1001 | 1069.38 | 1097.2 | -0.3 | -0.3 | 20.6 | 1088.6 | 8.6 |
| 72 | 1011 1000 | 1085.00 | 1100.5 | -0.3 | -0.3 | 3.3 | 1104.5 | -4.0 |
| 73 | 1011 0111 | 1100.63 | 1117.6 | 0.2 | 0.3 | 17.1 | 1120.4 | -2.7 |
| 74 | 1011 0110 | 1116.25 | 1133.8 | 0.4 | 0.4 | 16.2 | 1136.2 | -2.4 |
| 75 | 1011 0101 | 1131.88 | 1157.6 | -0.2 | 0.2 | 23.7 | 1152.1 | 5.5 |
| 76 | 1011 0100 | 1147.50 | 1172.0 | 0.0 | -0.1 | 14.4 | 1167.9 | 4.1 |
| 77 | 1011 0011 | 1163.13 | 1184.3 | -0.1 | -0.3 | 12.3 | 1183.8 | 0.5 |
| 78 | 1011 0010 | 1178.75 | 1206.4 | 0.3 | 0.3 | 22.1 | 1199.7 | 6.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 595

1981/11/30 15:18:41 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1222.9 | 0.2 | 0.3 | 16.5 | 1215.5 | 7.4 |
| 80 | 1011 0000 | 1210.00 | 1236.1 | -0.1 | -0.2 | 13.2 | 1231.4 | 4.7 |
| 81 | 1010 1111 | 1225.63 | 1247.2 | -0.2 | -0.2 | 11.1 | 1247.2 | -0.0 |
| 82 | 1010 1110 | 1241.25 | 1257.2 | 0.3 | -0.0 | 10.0 | 1263.1 | -5.9 |
| 83 | 1010 1101 | 1256.88 | 1282.1 | 0.7 | 0.8 | 25.0 | 1279.0 | 3.2 |
| 84 | 1010 1100 | 1272.50 | 1297.7 | 0.0 | -0.0 | 15.6 | 1294.8 | 2.9 |
| 85 | 1010 1011 | 1288.13 | 1309.7 | -0.2 | -0.2 | 11.9 | 1310.7 | -1.0 |
| 86 | 1010 1010 | 1303.75 | 1329.3 | -0.6 | -0.6 | 19.6 | 1326.5 | 2.7 |
| 87 | 1010 1001 | 1319.38 | 1348.4 | 0.1 | 0.3 | 19.1 | 1342.4 | 6.0 |
| 88 | 1010 1000 | 1335.00 | 1360.5 | 0.4 | 0.4 | 12.1 | 1358.3 | 2.3 |
| 89 | 1010 0111 | 1350.63 | 1369.6 | -0.3 | 0.1 | 9.0 | 1374.1 | -4.6 |
| 90 | 1010 0110 | 1366.25 | 1386.1 | -0.5 | -0.4 | 16.6 | 1390.0 | -3.8 |
| 91 | 1010 0101 | 1381.88 | 1409.1 | 0.2 | 0.0 | 22.9 | 1405.8 | 3.2 |
| 92 | 1010 0100 | 1397.50 | 1427.2 | 0.1 | 0.2 | 18.1 | 1421.7 | 5.5 |
| 93 | 1010 0011 | 1413.13 | 1435.3 | 0.1 | 0.0 | 8.1 | 1437.5 | -2.2 |
| 94 | 1010 0010 | 1428.75 | 1457.8 | -0.5 | -0.4 | 22.4 | 1453.4 | 4.4 |
| 95 | 1010 0001 | 1444.38 | 1474.0 | 0.0 | -0.0 | 16.2 | 1469.3 | 4.7 |
| 96 | 1010 0000 | 1460.00 | 1486.3 | 0.3 | 0.2 | 12.3 | 1485.1 | 1.2 |
| 97 | 1001 1111 | 1475.63 | 1499.3 | 0.4 | 0.2 | 13.0 | 1501.0 | -1.6 |
| 98 | 1001 1110 | 1491.25 | 1509.1 | 0.0 | 0.6 | 9.8 | 1516.8 | -7.7 |
| 99 | 1001 1101 | 1506.88 | 1535.4 | -0.2 | -0.0 | 26.3 | 1532.7 | 2.7 |
| 100 | 1001 1100 | 1522.50 | 1546.9 | 0.0 | 0.0 | 11.5 | 1548.6 | -1.6 |
| 101 | 1001 1011 | 1538.13 | 1562.1 | 0.3 | 0.4 | 15.2 | 1564.4 | -2.3 |
| 102 | 1001 1010 | 1553.75 | 1580.6 | -0.1 | -0.1 | 18.5 | 1580.3 | 0.4 |
| 103 | 1001 1001 | 1569.38 | 1601.1 | -0.2 | 0.0 | 20.4 | 1596.1 | 4.9 |
| 104 | 1001 1000 | 1585.00 | 1607.4 | -0.4 | -0.4 | 6.3 | 1612.0 | -1.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 596
 1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1622.4 | -0.1 | -0.1 | 15.0 | 1627.9 | -5.5 |
| 106 | 1001 0110 | 1616.25 | 1637.2 | 1.0 | 1.0 | 14.8 | 1643.7 | -6.6 |
| 107 | 1001 0101 | 1631.88 | 1661.3 | -0.0 | 0.0 | 24.1 | 1659.6 | 1.7 |
| 108 | 1001 0100 | 1647.50 | 1675.7 | -0.1 | 0.1 | 14.4 | 1675.4 | 0.3 |
| 109 | 1001 0011 | 1663.13 | 1688.3 | -0.1 | -0.1 | 12.6 | 1691.3 | -3.0 |
| 110 | 1001 0010 | 1678.75 | 1709.7 | 0.1 | 0.1 | 21.4 | 1707.2 | 2.6 |
| 111 | 1001 0001 | 1694.38 | 1725.8 | 0.7 | 1.0 | 16.1 | 1723.0 | 2.8 |
| 112 | 1001 0000 | 1710.00 | 1744.6 | -0.0 | 0.0 | 18.7 | 1738.9 | 5.7 |
| 113 | 1000 1111 | 1725.63 | 1750.7 | 0.2 | 0.2 | 6.2 | 1754.7 | -4.0 |
| 114 | 1000 1110 | 1741.25 | 1761.0 | -0.4 | -0.3 | 10.3 | 1770.6 | -9.6 |
| 115 | 1000 1101 | 1756.88 | 1786.5 | 0.4 | 0.7 | 25.5 | 1786.4 | 0.1 |
| 116 | 1000 1100 | 1772.50 | 1800.6 | 0.0 | 0.1 | 14.1 | 1802.3 | -1.7 |
| 117 | 1000 1011 | 1788.13 | 1813.9 | -0.3 | 0.2 | 13.2 | 1818.2 | -4.3 |
| 118 | 1000 1010 | 1803.75 | 1832.6 | -0.3 | -0.2 | 18.8 | 1834.0 | -1.4 |
| 119 | 1000 1001 | 1819.38 | 1852.1 | -0.1 | -0.2 | 19.5 | 1849.9 | 2.2 |
| 120 | 1000 1000 | 1835.00 | 1867.1 | 0.7 | 0.7 | 15.0 | 1865.7 | 1.4 |
| 121 | 1000 0111 | 1850.63 | 1873.7 | 0.1 | 0.2 | 6.5 | 1881.6 | -8.0 |
| 122 | 1000 0110 | 1866.25 | 1889.4 | -0.3 | -0.1 | 15.7 | 1897.5 | -8.1 |
| 123 | 1000 0101 | 1881.88 | 1913.2 | -0.3 | -0.2 | 23.9 | 1913.3 | -0.1 |
| 124 | 1000 0100 | 1897.50 | 1930.7 | 0.3 | 0.1 | 17.5 | 1929.2 | 1.6 |
| 125 | 1000 0011 | 1913.13 | 1939.3 | 0.2 | 0.3 | 8.5 | 1945.0 | -5.7 |
| 126 | 1000 0010 | 1928.75 | 1961.3 | -0.0 | 0.7 | 22.0 | 1960.9 | 0.4 |
| 127 | 1000 0001 | 1944.38 | 1978.0 | -0.2 | -0.2 | 16.7 | 1976.8 | 1.2 |
| 128 | 1000 0000 | 1960.00 | 1996.2 | -0.0 | 0.0 | 18.2 | 1992.6 | 3.6 |
| 129 | 0111 1111 | 1975.63 | 2002.3 | 0.3 | 5.0 | 6.1 | 2008.5 | -6.2 |
| 130 | 0111 1110 | 1991.25 | 2018.0 | 0.2 | 0.4 | 15.7 | 2024.3 | -6.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 597

1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15) 10/30/81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2043.5 | -0.3 | 0.1 | 25.5 | 2040.2 | 3.3 |
| 132 | 0111 1100 | 2022.50 | 2056.7 | 0.4 | 0.4 | 13.2 | 2056.1 | 0.6 |
| 133 | 0111 1011 | 2038.13 | 2069.7 | -0.1 | -0.5 | 13.0 | 2071.9 | -2.3 |
| 134 | 0111 1010 | 2053.75 | 2090.7 | 0.5 | 0.4 | 21.0 | 2087.8 | 2.9 |
| 135 | 0111 1001 | 2069.38 | 2110.1 | 0.2 | 0.1 | 19.5 | 2103.6 | 6.5 |
| 136 | 0111 1000 | 2085.00 | 2113.7 | -0.3 | -0.3 | 3.6 | 2119.5 | -5.8 |
| 137 | 0111 0111 | 2100.63 | 2129.6 | -0.1 | -0.1 | 15.9 | 2135.3 | -5.7 |
| 138 | 0111 0110 | 2116.25 | 2146.6 | 0.5 | 0.1 | 17.0 | 2151.2 | -4.6 |
| 139 | 0111 0101 | 2131.88 | 2169.6 | 0.9 | 0.9 | 23.0 | 2167.1 | 2.6 |
| 140 | 0111 0100 | 2147.50 | 2187.1 | -0.0 | 0.1 | 17.5 | 2182.9 | 4.2 |
| 141 | 0111 0011 | 2163.13 | 2195.9 | -0.1 | -0.1 | 8.8 | 2198.8 | -2.8 |
| 142 | 0111 0010 | 2178.75 | 2221.1 | -0.4 | -0.5 | 25.1 | 2214.6 | 6.4 |
| 143 | 0111 0001 | 2194.38 | 2236.0 | 0.4 | 0.4 | 14.9 | 2230.5 | 5.5 |
| 144 | 0111 0000 | 2210.00 | 2246.4 | -0.0 | 0.0 | 10.3 | 2246.4 | 0.0 |
| 145 | 0110 1111 | 2225.63 | 2260.4 | -0.4 | -0.0 | 14.0 | 2262.2 | -1.9 |
| 146 | 0110 1110 | 2241.25 | 2270.5 | -0.3 | -0.1 | 10.1 | 2278.1 | -7.6 |
| 147 | 0110 1101 | 2256.88 | 2295.7 | -0.0 | -0.3 | 25.2 | 2293.9 | 1.7 |
| 148 | 0110 1100 | 2272.50 | 2312.7 | 0.0 | 0.2 | 17.1 | 2309.8 | 2.9 |
| 149 | 0110 1011 | 2288.13 | 2321.0 | 0.4 | 0.2 | 8.3 | 2325.7 | -4.6 |
| 150 | 0110 1010 | 2303.75 | 2343.1 | 0.0 | 0.0 | 22.0 | 2341.5 | 1.6 |
| 151 | 0110 1001 | 2319.38 | 2361.7 | -0.2 | -0.1 | 18.6 | 2357.4 | 4.3 |
| 152 | 0110 1000 | 2335.00 | 2374.9 | 0.5 | -0.0 | 13.2 | 2373.2 | 1.7 |
| 153 | 0110 0111 | 2350.63 | 2380.8 | 0.3 | 5.3 | 5.9 | 2389.1 | -8.3 |
| 154 | 0110 0110 | 2366.25 | 2398.7 | -0.1 | 0.5 | 17.9 | 2404.9 | -6.3 |
| 155 | 0110 0101 | 2381.88 | 2421.9 | -0.1 | -0.1 | 23.2 | 2420.8 | 1.1 |
| 156 | 0110 0100 | 2397.50 | 2442.8 | -0.1 | -0.1 | 20.9 | 2436.7 | 6.1 |
| 157 | 0110 0011 | 2413.13 | 2447.1 | 0.4 | 0.3 | 4.3 | 2452.5 | -5.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 598

1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2470.5 | 0.4 | 0.5 | 23.3 | 2468.4 | 2.1 |
| 159 | 0110 0001 | 2444.38 | 2487.5 | -0.1 | 0.2 | 17.0 | 2484.2 | 3.3 |
| 160 | 0110 0000 | 2460.00 | 2496.4 | -0.2 | -0.3 | 8.9 | 2500.1 | -3.7 |
| 161 | 0101 1111 | 2475.63 | 2513.7 | -0.0 | -0.4 | 17.2 | 2516.0 | -2.3 |
| 162 | 0101 1110 | 2491.25 | 2522.5 | 0.3 | 0.3 | 8.8 | 2531.8 | -9.4 |
| 163 | 0101 1101 | 2506.88 | 2548.3 | 0.2 | 0.2 | 25.9 | 2547.7 | 0.6 |
| 164 | 0101 1100 | 2522.50 | 2562.7 | -0.3 | -0.0 | 14.4 | 2563.5 | -0.8 |
| 165 | 0101 1011 | 2538.13 | 2574.5 | -0.4 | -0.4 | 11.8 | 2579.4 | -4.8 |
| 166 | 0101 1010 | 2553.75 | 2595.3 | 0.3 | -0.0 | 20.7 | 2595.3 | 0.0 |
| 167 | 0101 1001 | 2569.38 | 2614.5 | 0.1 | 0.3 | 19.2 | 2611.1 | 3.4 |
| 168 | 0101 1000 | 2585.00 | 2620.5 | -0.1 | 0.4 | 6.1 | 2627.0 | -6.4 |
| 169 | 0101 0111 | 2600.63 | 2639.8 | -0.1 | -0.1 | 19.2 | 2642.8 | -3.1 |
| 170 | 0101 0110 | 2616.25 | 2651.5 | -0.4 | -0.4 | 11.7 | 2658.7 | -7.2 |
| 171 | 0101 0101 | 2631.88 | 2675.0 | 0.3 | 0.1 | 23.5 | 2674.6 | 0.5 |
| 172 | 0101 0100 | 2647.50 | 2692.2 | -0.0 | 0.0 | 17.2 | 2690.4 | 1.8 |
| 173 | 0101 0011 | 2663.13 | 2700.8 | -0.4 | 0.0 | 8.6 | 2706.3 | -5.5 |
| 174 | 0101 0010 | 2678.75 | 2725.3 | -0.4 | -0.4 | 24.5 | 2722.1 | 3.2 |
| 175 | 0101 0001 | 2694.38 | 2740.7 | -0.1 | -0.2 | 15.3 | 2738.0 | 2.7 |
| 176 | 0101 0000 | 2710.00 | 2755.8 | 0.2 | 0.1 | 15.1 | 2753.8 | 1.9 |
| 177 | 0100 1111 | 2725.63 | 2765.3 | 0.2 | 0.3 | 9.5 | 2769.7 | -4.4 |
| 178 | 0100 1110 | 2741.25 | 2775.0 | -0.2 | -0.1 | 7.7 | 2785.6 | -10.6 |
| 179 | 0100 1101 | 2756.88 | 2800.5 | -0.5 | -0.5 | 25.5 | 2801.4 | -0.9 |
| 180 | 0100 1100 | 2772.50 | 2818.1 | 0.0 | -0.1 | 17.6 | 2817.3 | 0.8 |
| 181 | 0100 1011 | 2788.13 | 2826.1 | 0.2 | 0.2 | 8.1 | 2833.1 | -7.0 |
| 182 | 0100 1010 | 2803.75 | 2847.1 | -0.1 | 0.0 | 21.0 | 2849.0 | -1.9 |
| 183 | 0100 1001 | 2819.38 | 2866.4 | -0.3 | -0.2 | 19.3 | 2864.9 | 1.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 599

1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)



NO 30 31

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2883.1 | -0.4 | -0.4 | 16.7 | 2880.7 | 2.4 |
| 185 | 0100 0111 | 2850.63 | 2891.6 | 0.0 | 0.1 | 8.5 | 2896.6 | -4.9 |
| 186 | 0100 0110 | 2866.25 | 2903.0 | 0.5 | 0.9 | 11.4 | 2912.4 | -9.4 |
| 187 | 0100 0101 | 2881.88 | 2927.1 | -0.3 | 0.1 | 24.0 | 2928.3 | -1.2 |
| 188 | 0100 0100 | 2897.50 | 2948.1 | -0.2 | 0.0 | 21.0 | 2944.2 | 3.9 |
| 189 | 0100 0011 | 2913.13 | 2952.8 | -0.1 | -0.3 | 4.8 | 2960.0 | -7.2 |
| 190 | 0100 0010 | 2928.75 | 2975.3 | 0.3 | 0.4 | 22.5 | 2975.9 | -0.5 |
| 191 | 0100 0001 | 2944.38 | 2992.4 | 0.2 | 0.3 | 17.1 | 2991.7 | 0.7 |
| 192 | 0100 0000 | 2960.00 | 3008.6 | -0.0 | 0.0 | 16.1 | 3007.6 | 1.0 |
| 193 | 0011 1111 | 2975.63 | 3020.7 | -0.0 | -0.0 | 12.2 | 3023.5 | -2.7 |
| 194 | 0011 1110 | 2991.25 | 3029.5 | 0.4 | 0.0 | 8.8 | 3039.3 | -9.8 |
| 195 | 0011 1101 | 3006.88 | 3055.8 | 0.1 | 0.3 | 26.3 | 3055.2 | 0.7 |
| 196 | 0011 1100 | 3022.50 | 3068.6 | -0.1 | 0.2 | 12.7 | 3071.0 | -2.5 |
| 197 | 0011 1011 | 3038.13 | 3081.7 | -0.3 | -0.1 | 13.2 | 3086.9 | -5.1 |
| 198 | 0011 1010 | 3053.75 | 3103.7 | -0.3 | -0.3 | 21.9 | 3102.7 | 0.9 |
| 199 | 0011 1001 | 3069.38 | 3122.7 | 0.3 | 0.2 | 19.1 | 3118.6 | 4.1 |
| 200 | 0011 1000 | 3085.00 | 3124.5 | 0.4 | 0.4 | 1.8 | 3134.5 | -9.9 |
| 201 | 0011 0111 | 3100.63 | 3147.8 | -2.0 | 0.1 | 23.2 | 3150.3 | -2.5 |
| 202 | 0011 0110 | 3116.25 | 3159.5 | -0.6 | -0.6 | 11.7 | 3166.2 | -6.6 |
| 203 | 0011 0101 | 3131.88 | 3183.7 | -0.1 | -0.4 | 24.2 | 3182.0 | 1.7 |
| 204 | 0011 0100 | 3147.50 | 3199.3 | 0.0 | 0.1 | 15.5 | 3197.9 | 1.4 |
| 205 | 0011 0011 | 3163.13 | 3208.4 | -0.1 | 0.1 | 9.2 | 3213.8 | -5.3 |
| 206 | 0011 0010 | 3178.75 | 3233.4 | -0.8 | -0.6 | 25.0 | 3229.6 | 3.8 |
| 207 | 0011 0001 | 3194.38 | 3249.7 | -0.4 | -0.3 | 16.2 | 3245.5 | 4.2 |
| 208 | 0011 0000 | 3210.00 | 3262.7 | 0.7 | 0.0 | 13.0 | 3261.3 | 1.3 |
| 209 | 0010 1111 | 3225.63 | 3274.7 | 0.1 | 0.0 | 12.0 | 3277.2 | -2.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST . MODEL.. FLT. S/N 3 PAGE 600
1981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

2.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15) NO. 10 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3263.5 | -0.2 | 0.4 | 8.9 | 3293.1 | -9.5 |
| 211 | 0010 1101 | 3256.88 | 3310.0 | -0.4 | -0.4 | 26.4 | 3308.9 | 1.1 |
| 212 | 0010 1100 | 3272.50 | 3326.4 | -0.1 | -0.1 | 16.4 | 3324.8 | 1.6 |
| 213 | 0010 1011 | 3288.13 | 3335.5 | 0.1 | 0.1 | 9.1 | 3340.6 | -5.1 |
| 214 | 0010 1010 | 3303.75 | 3355.3 | 2.1 | 1.7 | 19.8 | 3356.5 | -1.2 |
| 215 | 0010 1001 | 3319.38 | 3377.7 | -0.3 | -0.0 | 22.4 | 3372.3 | 5.4 |
| 216 | 0010 1000 | 3335.00 | 3389.7 | -0.4 | -0.3 | 12.0 | 3388.2 | 1.5 |
| 217 | 0010 0111 | 3350.63 | 3402.0 | -0.5 | -0.1 | 12.3 | 3404.1 | -2.1 |
| 218 | 0010 0110 | 3366.25 | 3413.1 | 0.6 | 0.5 | 11.1 | 3419.9 | -6.8 |
| 219 | 0010 0101 | 3381.88 | 3437.6 | 0.2 | 0.3 | 24.5 | 3435.8 | 1.8 |
| 220 | 0010 0100 | 3397.50 | 3457.4 | -0.1 | 0.0 | 19.8 | 3451.6 | 5.7 |
| 221 | 0010 0011 | 3413.13 | 3463.0 | -0.6 | -0.5 | 5.6 | 3467.5 | -4.5 |
| 222 | 0010 0010 | 3428.75 | 3488.6 | 0.7 | 0.0 | 25.6 | 3483.4 | 5.2 |
| 223 | 0010 0001 | 3444.38 | 3503.4 | 0.3 | 0.3 | 14.9 | 3499.2 | 4.2 |
| 224 | 0010 0000 | 3460.00 | 3516.7 | -0.1 | -0.1 | 13.3 | 3515.1 | 1.6 |
| 225 | 0001 1111 | 3475.63 | 3524.4 | -0.5 | -0.4 | 7.7 | 3530.9 | -6.5 |
| 226 | 0001 1110 | 3491.25 | 3539.0 | -0.5 | -0.5 | 14.6 | 3546.8 | -7.8 |
| 227 | 0001 1101 | 3506.88 | 3565.0 | -0.1 | -0.0 | 26.0 | 3562.7 | 2.4 |
| 228 | 0001 1100 | 3522.50 | 3578.7 | 0.2 | 0.1 | 13.7 | 3578.5 | 0.2 |
| 229 | 0001 1011 | 3538.13 | 3591.4 | -0.0 | 0.0 | 12.7 | 3594.4 | -3.0 |
| 230 | 0001 1010 | 3553.75 | 3610.4 | -0.5 | -0.3 | 18.9 | 3610.2 | 0.1 |
| 231 | 0001 1001 | 3569.38 | 3632.7 | -0.4 | 1.0 | 22.4 | 3626.1 | 6.6 |
| 232 | 0001 1000 | 3585.00 | 3637.4 | 0.2 | 0.4 | 4.6 | 3642.0 | -4.5 |
| 233 | 0001 0111 | 3600.63 | 3651.9 | -0.0 | 0.0 | 14.6 | 3657.8 | -5.9 |
| 234 | 0001 0110 | 3616.25 | 3669.6 | -0.6 | -0.5 | 17.7 | 3673.7 | -4.1 |
| 235 | 0001 0101 | 3631.88 | 3694.1 | -0.5 | 0.0 | 24.5 | 3689.5 | 4.6 |
| 236 | 0001 0100 | 3647.50 | 3710.1 | 0.0 | 0.1 | 16.0 | 3705.4 | 4.7 |

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3-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 601

981/11/30 15:18:44 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=15)

81 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3719.6 | 0.4 | 0.5 | 9.4 | 3721.2 | -1.7 |
| 238 | 0001 0010 | 3678.75 | 3742.6 | -0.1 | -0.0 | 23.1 | 3737.1 | 5.5 |
| 239 | 0001 0001 | 3694.38 | 3760.7 | -0.4 | -0.2 | 18.1 | 3753.0 | 7.7 |
| 240 | 0001 0000 | 3710.00 | 3778.9 | -0.0 | 0.0 | 18.2 | 3768.8 | 10.1 |
| 241 | 0000 1111 | 3725.63 | 3780.1 | 0.1 | 0.1 | 1.1 | 3784.7 | -4.3 |
| 242 | 0000 1110 | 3741.25 | 3794.5 | 0.3 | 0.6 | 14.4 | 3800.5 | -6.0 |
| 243 | 0000 1101 | 3756.88 | 3821.7 | -0.4 | -0.1 | 27.2 | 3816.4 | 5.3 |
| 244 | 0000 1100 | 3772.50 | 3838.7 | -0.2 | -0.1 | 17.0 | 3832.3 | 6.5 |
| 245 | 0000 1011 | 3788.13 | 3847.8 | 0.0 | -0.1 | 9.0 | 3848.1 | -0.4 |
| 246 | 0000 1010 | 3803.75 | 3867.8 | 1.6 | 1.0 | 20.1 | 3864.0 | 3.9 |
| 247 | 0000 1001 | 3819.38 | 3887.7 | 0.9 | 1.1 | 19.8 | 3879.8 | 7.8 |
| 248 | 0000 1000 | 3835.00 | 3903.8 | -0.0 | -0.6 | 16.1 | 3895.7 | 8.1 |
| 249 | 0000 0111 | 3850.63 | 3908.8 | -0.9 | -0.4 | 5.1 | 3911.6 | -2.7 |
| 250 | 0000 0110 | 3866.25 | 3925.4 | 0.4 | 0.1 | 16.5 | 3927.4 | -2.1 |
| 251 | 0000 0101 | 3881.88 | 3950.2 | -0.1 | 0.6 | 24.8 | 3943.3 | 6.9 |
| 252 | 0000 0100 | 3897.50 | 3970.6 | -0.0 | 0.0 | 20.4 | 3959.1 | 11.4 |
| 253 | 0000 0011 | 3913.13 | 3976.5 | -0.3 | 0.1 | 6.0 | 3975.0 | 1.6 |
| 254 | 0000 0010 | 3928.75 | 4000.7 | -0.0 | 0.0 | 24.1 | 3990.9 | 9.8 |
| 255 | 0000 0001 | 3944.38 | 4016.8 | -0.0 | 0.2 | 16.1 | 4006.7 | 10.1 |

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 602
1981/11/30 15:25:07 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.



3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=16)
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.837X - 41.3MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.359%

OFFSET IS:-41.3MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998150$

ANALOG INPUT DURING DC RESTORE IS:64.5MV

RMS ERROR = 4.767MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.5MV | 227 | 15.904MV | 1.8MV | 241 | 5.568MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.0MV | 231 | -0.055MV | -3.4MV | 32 | .323MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 2.8MV | 222 | 0.001MV | -0.6MV | 64 | .275MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 603
 1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=16)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -32.4 | -0.4 | 0.1 | | -25.4 | -7.0 |
| 2 | 1111 1110 | -8.750 | -18.1 | -0.2 | -0.1 | 14.3 | -9.6 | -8.5 |
| 3 | 1111 1101 | 6.875 | 6.2 | -0.1 | 0.0 | 24.3 | 6.2 | -0.1 |
| 4 | 1111 1100 | 22.500 | 19.1 | -0.0 | -0.1 | 12.9 | 22.1 | -3.0 |
| 5 | 1111 1011 | 38.125 | 34.8 | -0.0 | 0.0 | 15.7 | 37.9 | -3.1 |
| 6 | 1111 1010 | 53.750 | 53.4 | 0.1 | 0.1 | 18.6 | 53.8 | -0.3 |
| 7 | 1111 1001 | 69.375 | 73.2 | -0.1 | -0.1 | 19.8 | 69.6 | 3.6 |
| 8 | 1111 1000 | 85.000 | 78.8 | 0.2 | 0.2 | 5.6 | 85.4 | -6.6 |
| 9 | 1111 0111 | 100.625 | 95.5 | -0.1 | -0.0 | 16.7 | 101.3 | -5.8 |
| 10 | 1111 0110 | 116.250 | 112.0 | 0.1 | 0.1 | 16.5 | 117.1 | -5.1 |
| 11 | 1111 0101 | 131.875 | 134.1 | -0.2 | -0.1 | 22.1 | 132.9 | 1.1 |
| 12 | 1111 0100 | 147.500 | 150.4 | -0.2 | -0.2 | 16.3 | 148.8 | 1.6 |
| 13 | 1111 0011 | 163.125 | 162.6 | -0.8 | -0.4 | 12.2 | 164.6 | -2.1 |
| 14 | 1111 0010 | 178.750 | 184.1 | 0.0 | -0.1 | 21.5 | 180.5 | 3.6 |
| 15 | 1111 0001 | 194.375 | 200.8 | -0.1 | -0.1 | 16.7 | 196.3 | 4.5 |
| 16 | 1111 0000 | 210.000 | 210.6 | -0.4 | -0.0 | 9.8 | 212.1 | -1.6 |
| 17 | 1110 1111 | 225.625 | 222.4 | 0.0 | 0.0 | 11.8 | 228.0 | -5.6 |
| 18 | 1110 1110 | 241.250 | 236.9 | -0.1 | -0.2 | 14.5 | 243.8 | -6.9 |
| 19 | 1110 1101 | 256.875 | 261.1 | -0.2 | -0.1 | 24.2 | 259.6 | 1.5 |
| 20 | 1110 1100 | 272.500 | 276.6 | 0.6 | 0.6 | 15.5 | 275.5 | 1.1 |
| 21 | 1110 1011 | 288.125 | 289.6 | -0.1 | -0.2 | 13.1 | 291.3 | -1.7 |
| 22 | 1110 1010 | 303.750 | 308.8 | -0.1 | -0.0 | 19.1 | 307.2 | 1.6 |
| 23 | 1110 1001 | 319.375 | 328.0 | -0.2 | -0.1 | 19.2 | 323.0 | 5.0 |
| 24 | 1110 1000 | 335.000 | 341.0 | -0.0 | -0.1 | 13.1 | 338.8 | 2.2 |
| 25 | 1110 0111 | 350.625 | 350.1 | -0.1 | -0.1 | 9.1 | 354.7 | -4.5 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 604

1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=16)



REV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|--------------|-----------------------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS LOWER | RATIO= 1 : 1
UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 367.0 | -0.2 | -0.2 | 16.9 | 370.5 | -3.5 |
| 27 | 1110 0101 | 381.875 | 388.7 | -0.1 | 0.0 | 21.7 | 386.3 | 2.4 |
| 28 | 1110 0100 | 397.500 | 408.6 | 0.1 | 0.1 | 19.9 | 402.2 | 6.5 |
| 29 | 1110 0011 | 413.125 | 417.0 | -0.1 | 0.0 | 8.4 | 418.0 | -1.0 |
| 30 | 1110 0010 | 428.750 | 436.4 | -0.2 | -0.0 | 19.3 | 433.8 | 2.5 |
| 31 | 1110 0001 | 444.375 | 455.1 | 0.1 | 0.1 | 18.7 | 449.7 | 5.4 |
| 32 | 1110 0000 | 460.600 | 462.9 | -3.4 | -0.2 | 7.9 | 465.5 | -2.6 |
| 33 | 1101 1111 | 475.625 | 478.1 | -0.1 | -0.1 | 15.2 | 481.4 | -3.2 |
| 34 | 1101 1110 | 491.250 | 491.5 | 0.2 | 0.1 | 13.4 | 497.2 | -5.7 |
| 35 | 1101 1101 | 506.875 | 516.8 | -0.1 | 0.0 | 25.3 | 513.0 | 3.8 |
| 36 | 1101 1100 | 522.500 | 529.4 | -0.3 | -0.2 | 12.6 | 528.9 | 0.6 |
| 37 | 1101 1011 | 538.125 | 545.2 | -0.2 | -0.0 | 15.8 | 544.7 | 0.5 |
| 38 | 1101 1010 | 553.750 | 563.4 | 0.0 | 0.0 | 18.2 | 560.5 | 2.9 |
| 39 | 1101 1001 | 569.375 | 583.3 | -0.1 | 0.1 | 19.8 | 576.4 | 6.9 |
| 40 | 1101 1000 | 585.000 | 591.3 | 0.0 | -0.0 | 8.0 | 592.2 | -0.9 |
| 41 | 1101 0111 | 600.625 | 605.4 | 0.0 | 0.1 | 14.1 | 608.1 | -2.7 |
| 42 | 1101 0110 | 616.250 | 621.4 | -0.0 | -0.1 | 16.1 | 623.9 | -2.3 |
| 43 | 1101 0101 | 631.875 | 644.0 | -0.1 | -0.0 | 22.6 | 639.7 | 4.3 |
| 44 | 1101 0100 | 647.500 | 660.0 | -0.1 | -0.1 | 15.9 | 655.6 | 4.4 |
| 45 | 1101 0011 | 663.125 | 672.3 | -0.0 | 0.1 | 12.3 | 671.4 | 0.8 |
| 46 | 1101 0010 | 678.750 | 693.2 | -0.1 | -0.0 | 20.9 | 687.2 | 5.9 |
| 47 | 1101 0001 | 694.375 | 709.9 | -0.1 | 0.1 | 16.8 | 703.1 | 6.9 |
| 48 | 1101 0000 | 710.000 | 723.7 | 0.4 | 0.4 | 13.8 | 718.9 | 4.8 |
| 49 | 1100 1111 | 725.625 | 731.6 | 0.0 | 0.0 | 7.9 | 734.8 | -3.1 |
| 50 | 1100 1110 | 741.250 | 745.4 | -0.1 | -0.1 | 13.8 | 750.6 | -5.1 |
| 51 | 1100 1101 | 756.875 | 770.1 | -0.0 | -0.0 | 24.7 | 766.4 | 3.7 |

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4S-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 605

1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)



| THRESHOLD
NUMBER | A/D
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 784.5 | 0.6 | 0.8 | 14.4 | 782.3 | 2.3 |
| 53 | 1100 1011 | 788.125 | 798.3 | 0.0 | -0.1 | 13.8 | 798.1 | 0.2 |
| 54 | 1100 1010 | 803.750 | 816.9 | 0.1 | 0.1 | 18.6 | 813.9 | 3.0 |
| 55 | 1100 1001 | 819.375 | 835.9 | 0.1 | -0.1 | 18.9 | 829.8 | 6.1 |
| 56 | 1100 1000 | 835.000 | 852.3 | 0.1 | -0.0 | 16.4 | 845.6 | 6.7 |
| 57 | 1100 0111 | 850.625 | 858.3 | -0.1 | -0.0 | 5.9 | 861.5 | -3.2 |
| 58 | 1100 0110 | 866.250 | 874.4 | -0.0 | 0.0 | 16.2 | 877.3 | -2.9 |
| 59 | 1100 0101 | 881.875 | 896.5 | -0.2 | -0.4 | 22.1 | 893.1 | 3.4 |
| 60 | 1100 0100 | 897.500 | 916.5 | -0.1 | 0.2 | 20.0 | 909.0 | 7.6 |
| 61 | 1100 0011 | 913.125 | 924.6 | -0.1 | -0.1 | 8.1 | 924.8 | -0.2 |
| 62 | 1100 0010 | 928.750 | 945.6 | 0.1 | 0.1 | 21.0 | 940.6 | 5.0 |
| 63 | 1100 0001 | 944.375 | 961.9 | -0.0 | -0.1 | 16.3 | 956.5 | 5.4 |
| 64 | 1100 0000 | 960.000 | 975.3 | -0.6 | -0.6 | 13.4 | 972.3 | 3.0 |
| 65 | 1011 1111 | 975.625 | 986.4 | -0.0 | 0.0 | 11.1 | 988.2 | -1.7 |
| 66 | 1011 1110 | 991.250 | 999.8 | 0.0 | 0.0 | 13.3 | 1004.0 | -4.2 |
| 67 | 1011 1101 | 1006.88 | 1025.5 | -0.0 | -0.1 | 25.7 | 1019.8 | 5.7 |
| 68 | 1011 1100 | 1022.50 | 1037.1 | -0.2 | -0.2 | 11.6 | 1035.7 | 1.5 |
| 69 | 1011 1011 | 1038.13 | 1053.0 | 0.1 | 0.1 | 15.9 | 1051.5 | 1.5 |
| 70 | 1011 1010 | 1053.75 | 1071.6 | 0.1 | 0.0 | 18.5 | 1067.3 | 4.2 |
| 71 | 1011 1001 | 1069.38 | 1091.6 | 0.1 | 0.0 | 20.0 | 1083.2 | 8.4 |
| 72 | 1011 1000 | 1085.00 | 1095.3 | 0.0 | -0.0 | 3.7 | 1099.0 | -3.7 |
| 73 | 1011 0111 | 1100.63 | 1112.8 | -0.0 | 0.0 | 17.5 | 1114.9 | -2.1 |
| 74 | 1011 0110 | 1116.25 | 1128.8 | 0.1 | -0.2 | 16.0 | 1130.7 | -1.9 |
| 75 | 1011 0101 | 1131.88 | 1151.9 | -0.1 | -0.0 | 23.1 | 1146.5 | 5.3 |
| 76 | 1011 0100 | 1147.50 | 1166.2 | 0.1 | 0.1 | 14.3 | 1162.4 | 3.8 |
| 77 | 1011 0011 | 1163.13 | 1179.1 | 0.0 | 0.0 | 12.9 | 1178.2 | 0.9 |
| 78 | 1011 0010 | 1178.75 | 1200.6 | -0.0 | -0.0 | 21.5 | 1194.0 | 6.5 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 606

1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=16)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1217.5 | 0.0 | -0.0 | 16.9 | 1209.9 | 7.6 |
| 80 | 1011 0000 | 1210.00 | 1229.8 | 0.2 | 0.4 | 12.3 | 1225.7 | 4.1 |
| 81 | 1010 1111 | 1225.63 | 1238.0 | -0.0 | -0.1 | 8.2 | 1241.6 | -3.5 |
| 82 | 1010 1110 | 1241.25 | 1252.0 | -0.1 | -0.2 | 14.0 | 1257.4 | -5.4 |
| 83 | 1010 1101 | 1256.88 | 1277.0 | -0.0 | 0.0 | 25.0 | 1273.2 | 3.7 |
| 84 | 1010 1100 | 1272.50 | 1291.0 | 0.1 | -0.1 | 14.0 | 1289.1 | 1.9 |
| 85 | 1010 1011 | 1288.13 | 1304.5 | -0.1 | -0.0 | 13.5 | 1304.9 | -0.4 |
| 86 | 1010 1010 | 1303.75 | 1324.2 | -0.3 | -0.1 | 19.7 | 1320.7 | 3.5 |
| 87 | 1010 1001 | 1319.38 | 1342.6 | 0.1 | 0.1 | 18.3 | 1336.6 | 6.0 |
| 88 | 1010 1000 | 1335.00 | 1355.0 | 0.0 | -0.0 | 12.4 | 1352.4 | 2.6 |
| 89 | 1010 0111 | 1350.63 | 1364.0 | -0.0 | -0.1 | 9.0 | 1368.3 | -4.2 |
| 90 | 1010 0110 | 1366.25 | 1380.2 | 0.2 | 0.0 | 16.1 | 1384.1 | -3.9 |
| 91 | 1010 0101 | 1381.88 | 1403.1 | 0.1 | -0.0 | 22.9 | 1399.9 | 3.2 |
| 92 | 1010 0100 | 1397.50 | 1421.4 | -0.2 | -0.1 | 18.3 | 1415.8 | 5.6 |
| 93 | 1010 0011 | 1413.13 | 1430.4 | -0.0 | -0.1 | 9.0 | 1431.6 | -1.2 |
| 94 | 1010 0010 | 1428.75 | 1451.6 | 0.0 | -0.1 | 21.2 | 1447.4 | 4.1 |
| 95 | 1010 0001 | 1444.38 | 1468.3 | 0.1 | 0.0 | 16.8 | 1463.3 | 5.1 |
| 96 | 1010 0000 | 1460.00 | 1479.9 | -0.0 | -0.1 | 11.6 | 1479.1 | 0.8 |
| 97 | 1001 1111 | 1475.63 | 1490.6 | -0.0 | -0.0 | 10.7 | 1494.9 | -4.3 |
| 98 | 1001 1110 | 1491.25 | 1503.5 | 0.1 | -0.2 | 12.9 | 1510.8 | -7.2 |
| 99 | 1001 1101 | 1506.88 | 1529.3 | -0.0 | 0.0 | 25.8 | 1526.6 | 2.7 |
| 100 | 1001 1100 | 1522.50 | 1540.2 | -0.1 | -0.2 | 10.9 | 1542.5 | -2.2 |
| 101 | 1001 1011 | 1538.13 | 1556.4 | 0.6 | -0.0 | 16.2 | 1558.3 | -1.9 |
| 102 | 1001 1010 | 1553.75 | 1575.3 | -0.2 | -0.5 | 18.8 | 1574.1 | 1.1 |
| 103 | 1001 1001 | 1569.38 | 1594.5 | 0.1 | 0.1 | 19.3 | 1590.0 | 4.6 |
| 104 | 1001 1000 | 1585.00 | 1601.6 | -0.0 | -0.1 | 7.1 | 1605.8 | -4.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 607

1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=16)



NO 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE. | |
|---------------------|-------------------------|------------------------|---------------------------|--------------|-----------------------|------------------------------------|-------------------------|-----------|
| | | | NOMINAL | LEVELS LOWER | RATIO= 1 : 1
UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1616.6 | 0.0 | -0.0 | 15.0 | 1621.6 | -5.0 |
| 106 | 1001 0110 | 1616.25 | 1632.1 | -0.1 | -0.1 | 15.4 | 1637.5 | -5.4 |
| 107 | 1001 0101 | 1631.88 | 1654.7 | 0.8 | 1.0 | 22.6 | 1653.3 | 1.4 |
| 108 | 1001 0100 | 1647.50 | 1669.6 | 0.1 | -0.0 | 14.8 | 1669.2 | 0.4 |
| 109 | 1001 0011 | 1663.13 | 1682.8 | -0.2 | -0.1 | 13.3 | 1685.0 | -2.2 |
| 110 | 1001 0010 | 1678.75 | 1704.8 | -0.1 | -0.2 | 22.0 | 1700.8 | 4.0 |
| 111 | 1001 0001 | 1694.38 | 1720.6 | 0.0 | 0.0 | 15.8 | 1716.7 | 4.0 |
| 112 | 1001 0000 | 1710.00 | 1737.6 | 0.3 | -0.1 | 17.0 | 1732.5 | 5.1 |
| 113 | 1000 1111 | 1725.63 | 1742.2 | -0.1 | 0.0 | 4.6 | 1748.3 | -6.1 |
| 114 | 1000 1110 | 1741.25 | 1755.2 | -0.3 | -0.1 | 12.9 | 1764.2 | -9.0 |
| 115 | 1000 1101 | 1756.88 | 1780.4 | 0.0 | 0.1 | 25.2 | 1780.0 | 0.3 |
| 116 | 1000 1100 | 1772.50 | 1794.6 | 0.0 | -0.1 | 14.2 | 1795.9 | -1.3 |
| 117 | 1000 1011 | 1788.13 | 1808.2 | -0.0 | -0.0 | 13.6 | 1811.7 | -3.5 |
| 118 | 1000 1010 | 1803.75 | 1826.7 | 0.0 | 0.2 | 18.5 | 1827.5 | -0.8 |
| 119 | 1000 1001 | 1819.38 | 1845.8 | 0.2 | 0.1 | 19.1 | 1843.4 | 2.5 |
| 120 | 1000 1000 | 1835.00 | 1862.2 | -0.3 | -0.3 | 16.3 | 1859.2 | 3.0 |
| 121 | 1000 0111 | 1850.63 | 1867.7 | -0.0 | 0.0 | 5.5 | 1875.0 | -7.4 |
| 122 | 1000 0110 | 1866.25 | 1883.2 | 0.0 | 0.0 | 15.5 | 1890.9 | -7.7 |
| 123 | 1000 0101 | 1881.88 | 1906.7 | -1.3 | -0.2 | 23.5 | 1906.7 | -0.0 |
| 124 | 1000 0100 | 1897.50 | 1924.6 | 0.0 | 0.0 | 17.9 | 1922.6 | 2.1 |
| 125 | 1000 0011 | 1913.13 | 1933.4 | 0.1 | 0.2 | 8.8 | 1938.4 | -5.0 |
| 126 | 1000 0010 | 1928.75 | 1955.2 | -0.2 | -0.2 | 21.7 | 1954.2 | 0.9 |
| 127 | 1000 0001 | 1944.38 | 1971.4 | -0.1 | 0.0 | 16.3 | 1970.1 | 1.4 |
| 128 | 1000 0000 | 1960.00 | 1990.8 | -0.6 | 0.0 | 19.3 | 1985.9 | 4.9 |
| 129 | 0111 1111 | 1975.63 | 1996.8 | -0.0 | 0.0 | 6.0 | 2001.7 | -5.0 |
| 130 | 0111 1110 | 1991.25 | 2011.9 | 0.0 | -0.2 | 15.2 | 2017.6 | -5.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 608

1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=16)

KV 30 71

| HRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------|-------------------------|------------------------|---------------------------|------------------------------------|-------|------------------------------------|------------------------|--|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER UPPER | POINT | | DEVIATION | |
| 131 | 0111 1101 | 2006.88 | 2036.7 | -0.1 -0.2 | 24.8 | 2033.4 | 3.3 | |
| 132 | 0111 1100 | 2022.50 | 2050.4 | 0.2 0.1 | 13.7 | 2049.3 | 1.1 | |
| 133 | 0111 1011 | 2038.13 | 2063.5 | 0.0 -0.3 | 13.1 | 2065.1 | -1.6 | |
| 134 | 0111 1010 | 2053.75 | 2084.6 | -0.3 -0.3 | 21.2 | 2080.9 | 3.7 | |
| 135 | 0111 1001 | 2069.38 | 2103.0 | 0.1 0.3 | 18.3 | 2096.8 | 4.2 | |
| 136 | 0111 1000 | 2085.00 | 2113.0 | 0.1 0.0 | 10.1 | 2112.6 | 0.4 | |
| 137 | 0111 0111 | 2100.63 | 2123.0 | 0.0 0.0 | 9.9 | 2128.4 | -5.5 | |
| 138 | 0111 0110 | 2116.25 | 2140.5 | -0.2 -0.2 | 17.5 | 2144.3 | -3.8 | |
| 139 | 0111 0101 | 2131.88 | 2163.3 | 0.0 0.0 | 22.8 | 2160.1 | 3.2 | |
| 140 | 0111 0100 | 2147.50 | 2179.9 | 0.1 0.0 | 16.6 | 2176.0 | 4.0 | |
| 141 | 0111 0011 | 2163.13 | 2189.6 | -1.5 -0.1 | 9.7 | 2191.8 | -2.1 | |
| 142 | 0111 0010 | 2178.75 | 2212.3 | -0.1 -0.1 | 22.6 | 2207.6 | 4.6 | |
| 143 | 0111 0001 | 2194.38 | 2229.0 | 0.1 0.1 | 16.8 | 2223.5 | 5.6 | |
| 144 | 0111 0000 | 2210.00 | 2239.3 | 0.0 -0.4 | 10.2 | 2239.3 | -0.0 | |
| 145 | 0110 1111 | 2225.63 | 2248.4 | -0.1 -0.0 | 9.2 | 2255.1 | -6.7 | |
| 146 | 0110 1110 | 2241.25 | 2263.4 | 0.2 0.1 | 15.0 | 2271.0 | -7.5 | |
| 147 | 0110 1101 | 2256.88 | 2288.3 | 0.0 -0.0 | 24.9 | 2286.8 | 1.5 | |
| 148 | 0110 1100 | 2272.50 | 2306.1 | -0.1 -0.0 | 17.8 | 2302.7 | 3.4 | |
| 149 | 0110 1011 | 2288.13 | 2314.9 | -0.1 -0.0 | 8.8 | 2318.5 | -3.6 | |
| 150 | 0110 1010 | 2303.75 | 2336.7 | 0.4 0.3 | 21.7 | 2334.3 | 2.3 | |
| 151 | 0110 1001 | 2319.38 | 2355.0 | 0.0 -0.0 | 18.4 | 2350.2 | 4.9 | |
| 152 | 0110 1000 | 2335.00 | 2368.3 | -0.0 -0.1 | 13.3 | 2366.0 | 2.3 | |
| 153 | 0110 0111 | 2350.63 | 2374.4 | 0.0 -0.2 | 6.0 | 2381.8 | -7.4 | |
| 154 | 0110 0110 | 2366.25 | 2391.7 | 0.0 -0.2 | 17.3 | 2397.7 | -6.0 | |
| 155 | 0110 0101 | 2381.88 | 2414.7 | -0.1 -0.1 | 23.0 | 2413.5 | 1.2 | |
| 156 | 0110 0100 | 2397.50 | 2435.3 | -0.3 -0.1 | 20.6 | 2429.4 | 6.0 | |
| 157 | 0110 0011 | 2413.13 | 2440.8 | 0.1 0.1 | 5.5 | 2445.2 | -4.3 | |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 609

1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=14)

HAC
TEST
527

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2464.1 | -0.0 | -0.0 | 23.3 | 2461.0 | 3.1 |
| 159 | 0110 0001 | 2444.38 | 2480.3 | -0.1 | -0.0 | 16.2 | 2476.9 | 3.5 |
| 160 | 0110 0000 | 2460.00 | 2488.0 | -0.0 | -0.0 | 7.7 | 2492.7 | -4.7 |
| 161 | 0101 1111 | 2475.63 | 2501.0 | -0.1 | -0.0 | 13.0 | 2508.5 | -7.5 |
| 162 | 0101 1110 | 2491.25 | 2515.5 | -0.2 | -0.1 | 14.5 | 2524.4 | -8.9 |
| 163 | 0101 1101 | 2506.88 | 2540.7 | -0.0 | -0.0 | 25.1 | 2540.2 | 0.4 |
| 164 | 0101 1100 | 2522.50 | 2554.9 | 0.0 | 0.1 | 14.2 | 2556.0 | -1.1 |
| 165 | 0101 1011 | 2538.13 | 2567.6 | -0.0 | -0.0 | 12.7 | 2571.9 | -4.3 |
| 166 | 0101 1010 | 2553.75 | 2588.4 | -0.2 | -0.2 | 20.8 | 2587.7 | 0.7 |
| 167 | 0101 1001 | 2569.38 | 2606.8 | 0.2 | 0.1 | 18.3 | 2603.6 | 3.2 |
| 168 | 0101 1000 | 2585.00 | 2613.7 | -0.0 | -0.1 | 7.0 | 2619.4 | -5.7 |
| 169 | 0101 0111 | 2600.63 | 2627.1 | -0.1 | 0.0 | 13.4 | 2635.2 | -8.1 |
| 170 | 0101 0110 | 2616.25 | 2644.0 | -0.4 | 0.0 | 16.9 | 2651.1 | -7.1 |
| 171 | 0101 0101 | 2631.88 | 2667.6 | 0.0 | -0.0 | 23.5 | 2666.9 | 0.7 |
| 172 | 0101 0100 | 2647.50 | 2684.3 | 0.0 | -0.1 | 16.7 | 2682.7 | 1.6 |
| 173 | 0101 0011 | 2663.13 | 2693.8 | -0.1 | -0.1 | 9.4 | 2698.6 | -4.8 |
| 174 | 0101 0010 | 2678.75 | 2718.1 | 0.2 | 0.1 | 24.3 | 2714.4 | 3.7 |
| 175 | 0101 0001 | 2694.38 | 2733.0 | 0.0 | 0.0 | 14.9 | 2730.3 | 2.7 |
| 176 | 0101 0000 | 2710.00 | 2747.9 | -0.4 | -0.4 | 14.9 | 2746.1 | 1.8 |
| 177 | 0100 1111 | 2725.63 | 2752.7 | -0.0 | -0.1 | 4.7 | 2761.9 | -9.3 |
| 178 | 0100 1110 | 2741.25 | 2766.6 | -0.0 | -0.0 | 13.9 | 2777.8 | -11.2 |
| 179 | 0100 1101 | 2756.88 | 2792.7 | -0.1 | 0.0 | 26.1 | 2793.6 | -0.9 |
| 180 | 0100 1100 | 2772.50 | 2810.9 | -0.1 | -0.1 | 18.2 | 2809.4 | 1.5 |
| 181 | 0100 1011 | 2788.13 | 2819.1 | 0.0 | -0.0 | 8.1 | 2825.3 | -6.2 |
| 182 | 0100 1010 | 2803.75 | 2840.4 | 0.4 | 0.0 | 21.3 | 2841.1 | -0.8 |
| 183 | 0100 1001 | 2819.38 | 2858.5 | -0.1 | -0.2 | 18.1 | 2857.0 | 1.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 610

1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=16)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------------|-------|------------------------------------|------------------------|-------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER UPPER | POINT | | DEVIATION | |
| 184 | 0100 1000 | 2835.00 | 2875.5 | -0.2 | -0.0 | 17.0 | 2872.8 | 2.7 |
| 185 | 0100 0111 | 2850.63 | 2878.7 | -0.0 | 0.0 | 3.2 | 2888.6 | -10.0 |
| 186 | 0100 0110 | 2866.25 | 2895.6 | -0.0 | -0.0 | 16.9 | 2904.5 | -8.9 |
| 187 | 0100 0101 | 2881.88 | 2919.2 | -0.2 | -0.1 | 23.6 | 2920.3 | -1.1 |
| 188 | 0100 0100 | 2897.50 | 2939.6 | 0.3 | 0.3 | 20.4 | 2936.1 | 3.5 |
| 189 | 0100 0011 | 2913.13 | 2945.2 | -0.0 | -0.1 | 5.6 | 2952.0 | -6.7 |
| 190 | 0100 0010 | 2928.75 | 2967.8 | -0.2 | -0.2 | 22.5 | 2967.8 | -0.1 |
| 191 | 0100 0001 | 2944.38 | 2984.3 | -0.0 | -0.0 | 16.5 | 2983.7 | 0.6 |
| 192 | 0100 0000 | 2960.00 | 3001.4 | 0.5 | 0.6 | 17.1 | 2999.5 | 1.9 |
| 193 | 0011 1111 | 2975.63 | 3007.1 | -0.1 | 0.0 | 5.7 | 3015.3 | -8.3 |
| 194 | 0011 1110 | 2991.25 | 3022.0 | -0.1 | -0.2 | 14.9 | 3031.2 | -9.2 |
| 195 | 0011 1101 | 3006.98 | 3047.9 | -0.0 | -0.0 | 26.0 | 3047.0 | 0.9 |
| 196 | 0011 1100 | 3022.50 | 3060.2 | 0.1 | -0.1 | 12.2 | 3062.8 | -2.6 |
| 197 | 0011 1011 | 3038.13 | 3074.1 | -0.0 | 0.0 | 13.9 | 3078.7 | -4.5 |
| 198 | 0011 1010 | 3053.75 | 3095.5 | -0.2 | 0.2 | 21.4 | 3094.5 | 1.0 |
| 199 | 0011 1001 | 3069.38 | 3114.2 | 0.6 | 0.0 | 18.6 | 3110.4 | 3.8 |
| 200 | 0011 1000 | 3085.00 | 3117.0 | -0.1 | -0.3 | 2.8 | 3126.2 | -9.2 |
| 201 | 0011 0111 | 3100.63 | 3133.9 | 0.1 | -0.0 | 16.8 | 3142.0 | -8.2 |
| 202 | 0011 0110 | 3116.25 | 3150.9 | 0.3 | 0.3 | 17.0 | 3157.9 | -7.0 |
| 203 | 0011 0101 | 3131.88 | 3175.1 | -0.1 | -0.1 | 24.2 | 3173.7 | 1.4 |
| 204 | 0011 0100 | 3147.50 | 3190.6 | -0.2 | -0.2 | 15.5 | 3189.5 | 1.1 |
| 205 | 0011 0011 | 3163.13 | 3201.1 | -0.1 | -0.1 | 10.5 | 3205.4 | -4.2 |
| 206 | 0011 0010 | 3178.75 | 3225.5 | 0.4 | -0.1 | 24.3 | 3221.2 | 4.3 |
| 207 | 0011 0001 | 3194.38 | 3240.6 | -0.0 | -0.0 | 15.1 | 3237.1 | 3.5 |
| 208 | 0011 0000 | 3210.00 | 3253.0 | -0.3 | -0.3 | 12.4 | 3252.9 | 0.1 |
| 209 | 0010 1111 | 3225.63 | 3260.3 | -0.0 | -0.1 | 7.3 | 3268.7 | -8.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 611
 1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 3, SENSOR=16)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3275.3 | -0.1 | -0.2 | 15.0 | 3284.6 | -9.3 |
| 211 | 0010 1101 | 3256.88 | 3301.4 | -0.4 | -0.1 | 26.1 | 3300.4 | 1.0 |
| 212 | 0010 1100 | 3272.50 | 3318.2 | -0.1 | -0.1 | 16.8 | 3316.2 | 2.0 |
| 213 | 0010 1011 | 3288.13 | 3327.4 | -0.0 | 0.0 | 9.1 | 3332.1 | -4.7 |
| 214 | 0010 1010 | 3303.75 | 3349.4 | -0.0 | -0.2 | 22.1 | 3347.9 | 1.5 |
| 215 | 0010 1001 | 3319.38 | 3367.8 | -0.1 | 1.2 | 18.3 | 3363.8 | 4.0 |
| 216 | 0010 1000 | 3335.00 | 3381.3 | 0.1 | -0.0 | 13.6 | 3379.6 | 1.7 |
| 217 | 0010 0111 | 3350.63 | 3387.8 | -0.5 | 0.0 | 6.5 | 3395.4 | -7.6 |
| 218 | 0010 0110 | 3366.25 | 3404.9 | -0.1 | -0.0 | 17.1 | 3411.3 | -6.3 |
| 219 | 0010 0101 | 3381.88 | 3427.9 | 0.8 | 1.2 | 23.0 | 3427.1 | 0.8 |
| 220 | 0010 0100 | 3397.50 | 3448.3 | 0.0 | 0.1 | 20.4 | 3442.9 | 5.3 |
| 221 | 0010 0011 | 3413.13 | 3454.9 | 0.0 | -0.0 | 6.6 | 3458.8 | -3.9 |
| 222 | 0010 0010 | 3428.75 | 3477.8 | -0.1 | 2.8 | 22.9 | 3474.6 | 3.1 |
| 223 | 0010 0001 | 3444.38 | 3494.7 | -0.0 | 0.1 | 17.0 | 3490.5 | 4.3 |
| 224 | 0010 0000 | 3460.00 | 3507.4 | 0.0 | 0.0 | 12.7 | 3506.3 | 1.1 |
| 225 | 0001 1111 | 3475.63 | 3515.9 | 0.0 | 0.0 | 8.5 | 3522.1 | -6.2 |
| 226 | 0001 1110 | 3491.25 | 3530.3 | -0.3 | 0.0 | 14.4 | 3538.0 | -7.7 |
| 227 | 0001 1101 | 3506.88 | 3556.8 | -0.0 | -0.1 | 26.5 | 3553.8 | 3.0 |
| 228 | 0001 1100 | 3522.50 | 3569.1 | 0.1 | 0.5 | 12.3 | 3569.6 | -0.5 |
| 229 | 0001 1011 | 3538.13 | 3583.4 | -0.0 | 0.0 | 14.2 | 3585.5 | -2.1 |
| 230 | 0001 1010 | 3553.75 | 3604.3 | 0.2 | 0.2 | 21.0 | 3601.3 | 3.0 |
| 231 | 0001 1001 | 3569.38 | 3623.9 | 1.0 | 1.2 | 19.5 | 3617.1 | 6.7 |
| 232 | 0001 1000 | 3585.00 | 3628.9 | -0.1 | -0.1 | 5.0 | 3633.0 | -4.1 |
| 233 | 0001 0111 | 3600.63 | 3643.9 | -0.4 | 0.0 | 15.0 | 3648.8 | -4.9 |
| 234 | 0001 0110 | 3616.25 | 3660.4 | 0.1 | 0.2 | 16.4 | 3664.7 | -4.3 |
| 235 | 0001 0101 | 3631.88 | 3685.4 | -0.1 | 0.1 | 25.0 | 3680.5 | 4.9 |
| 236 | 0001 0100 | 3647.50 | 3700.9 | -0.3 | -0.1 | 15.4 | 3696.3 | 4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 612
 1981/11/30 15:25:20 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 3, SENSOR=16)

REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3711.4 | -0.1 | -0.1 | 10.6 | 3712.2 | -0.7 |
| 238 | 0001 0010 | 3678.75 | 3735.5 | 0.2 | -0.1 | 24.0 | 3728.0 | 7.4 |
| 239 | 0001 0001 | 3694.38 | 3751.4 | -0.2 | -0.1 | 15.9 | 3743.8 | 7.5 |
| 240 | 0001 0000 | 3710.00 | 3769.6 | -0.7 | -0.1 | 18.2 | 3759.7 | 9.9 |
| 241 | 0000 1111 | 3725.63 | 3771.4 | -0.2 | -0.2 | 1.8 | 3775.5 | -4.1 |
| 242 | 0000 1110 | 3741.25 | 3785.8 | -0.1 | -0.1 | 14.4 | 3791.4 | -5.6 |
| 243 | 0000 1101 | 3756.88 | 3812.2 | -0.1 | -0.1 | 26.4 | 3807.2 | 5.0 |
| 244 | 0000 1100 | 3772.50 | 3829.9 | -0.5 | 0.1 | 17.6 | 3823.0 | 6.8 |
| 245 | 0000 1011 | 3788.13 | 3838.8 | -0.1 | -0.0 | 9.0 | 3838.9 | -0.0 |
| 246 | 0000 1010 | 3803.75 | 3860.6 | -0.4 | -0.3 | 21.7 | 3854.7 | 5.9 |
| 247 | 0000 1001 | 3819.38 | 3880.9 | -0.1 | -0.1 | 20.3 | 3870.5 | 10.3 |
| 248 | 0000 1000 | 3835.00 | 3895.9 | -0.1 | -0.1 | 15.0 | 3886.4 | 9.5 |
| 249 | 0000 0111 | 3850.63 | 3899.9 | -0.3 | 0.1 | 4.0 | 3902.2 | -2.3 |
| 250 | 0000 0110 | 3866.25 | 3916.1 | -0.0 | -0.0 | 16.2 | 3918.1 | -2.0 |
| 251 | 0000 0101 | 3881.88 | 3941.4 | -0.1 | -0.0 | 25.3 | 3933.9 | 7.5 |
| 252 | 0000 0100 | 3897.50 | 3960.3 | -0.0 | 0.0 | 19.0 | 3949.7 | 10.6 |
| 253 | 0000 0011 | 3913.13 | 3967.3 | -0.1 | 0.1 | 7.0 | 3965.6 | 1.8 |
| 254 | 0000 0010 | 3928.75 | 3992.7 | 0.0 | -0.1 | 25.4 | 3981.4 | 11.3 |
| 255 | 0000 0001 | 3944.38 | 4007.1 | 0.0 | 0.2 | 14.4 | 3997.2 | 9.9 |

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Appendix A

Multiplexer Performance Data

A/D THRESHOLD TEST DATA
Band 4

Section 4D



HS-206 TH-MATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 413
1981/11/30 15:31:49 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=1)
S U M M A R Y

BY 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.853X - 52.2MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.458%

OFFSET IS: -52.2MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998230$

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.855MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| | | | | | |
|--|--------------------|---------------------|-------------------|--------------------|-------------------------------|
| MAXIMUM
20.2MV | THRESHOLD #
227 | AVERAGE
15.924MV | MINIMUM
1.6MV | THRESHOLD #
200 | STANDARD DEVIATION
6.132MV |
| LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM
0.8MV | THRESHOLD #
112 | AVERAGE
-0.049MV | MINIMUM
-1.8MV | THRESHOLD #
239 | STANDARD DEVIATION
.665MV |
| UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM
5.6MV | THRESHOLD #
148 | AVERAGE
0.038MV | MINIMUM
-0.9MV | THRESHOLD #
158 | STANDARD DEVIATION
.766MV |

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TEST PASSED

H5-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 614

1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



EX 30 31

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -41.5 | 0.2 | 0.8 | | -36.3 | -5.2 |
| 2 | 1111 1110 | -8.750 | -27.9 | -0.0 | 0.7 | 13.6 | -20.3 | -7.5 |
| 3 | 1111 1101 | 6.875 | -2.7 | -0.8 | -0.7 | 25.2 | -4.6 | 1.9 |
| 4 | 1111 1100 | 22.500 | 11.2 | -0.8 | -0.7 | 13.9 | 11.2 | -0.1 |
| 5 | 1111 1011 | 38.125 | 24.4 | 0.6 | 0.7 | 13.2 | 27.1 | -2.7 |
| 6 | 1111 1010 | 53.750 | 40.3 | 0.6 | 0.7 | 15.9 | 42.9 | -2.6 |
| 7 | 1111 1001 | 69.375 | 63.3 | -0.7 | 0.1 | 23.0 | 58.8 | 4.5 |
| 8 | 1111 1000 | 85.000 | 68.7 | -0.7 | -0.8 | 5.4 | 74.7 | -5.9 |
| 9 | 1111 0111 | 100.625 | 86.4 | -0.1 | -0.7 | 17.7 | 90.5 | -4.1 |
| 10 | 1111 0110 | 116.250 | 102.0 | 0.7 | 0.7 | 15.6 | 106.4 | -4.3 |
| 11 | 1111 0101 | 131.875 | 124.4 | 0.7 | 0.7 | 22.3 | 122.2 | 2.2 |
| 12 | 1111 0100 | 147.500 | 142.2 | -0.7 | -0.7 | 17.8 | 138.1 | 4.2 |
| 13 | 1111 0011 | 163.125 | 152.8 | -0.7 | -0.7 | 10.5 | 153.9 | -1.1 |
| 14 | 1111 0010 | 178.750 | 170.4 | 0.6 | -0.0 | 17.6 | 169.8 | 0.6 |
| 15 | 1111 0001 | 194.375 | 190.6 | 0.5 | 0.7 | 20.1 | 185.6 | 4.9 |
| 16 | 1111 0000 | 210.000 | 199.8 | -0.0 | 0.7 | 9.3 | 201.5 | -1.6 |
| 17 | 1110 1111 | 225.625 | 213.4 | -0.8 | 1.9 | 13.6 | 217.3 | -3.9 |
| 18 | 1110 1110 | 241.250 | 228.3 | -0.7 | -0.7 | 14.8 | 233.2 | -4.9 |
| 19 | 1110 1101 | 256.875 | 251.7 | 0.6 | 0.7 | 23.4 | 249.0 | 2.6 |
| 20 | 1110 1100 | 272.500 | 268.8 | 0.6 | 0.7 | 17.1 | 264.9 | 3.9 |
| 21 | 1110 1011 | 288.125 | 280.2 | -0.7 | -0.0 | 11.5 | 280.7 | -0.5 |
| 22 | 1110 1010 | 303.750 | 296.6 | -0.7 | -0.7 | 16.3 | 296.6 | -0.0 |
| 23 | 1110 1001 | 319.375 | 318.4 | -0.1 | -0.6 | 21.8 | 312.4 | 6.0 |
| 24 | 1110 1000 | 335.000 | 326.8 | 0.7 | 0.7 | 8.4 | 328.3 | -1.5 |
| 25 | 1110 0111 | 350.625 | 340.6 | 0.6 | 0.7 | 13.7 | 344.1 | -3.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 615

1981/11/30 15:37:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



NO. 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 358.0 | -0.8 | -0.6 | 17.4 | 360.0 | -2.0 |
| 27 | 1110 0101 | 381.875 | 380.0 | -0.8 | -0.6 | 21.9 | 375.9 | 4.1 |
| 28 | 1110 0100 | 397.500 | 399.9 | 0.7 | 0.0 | 19.9 | 391.7 | 8.2 |
| 29 | 1110 0011 | 413.125 | 407.1 | 0.6 | 0.6 | 7.2 | 407.6 | -0.5 |
| 30 | 1110 0010 | 428.750 | 425.6 | -0.1 | 0.6 | 18.5 | 423.4 | 2.2 |
| 31 | 1110 0001 | 444.375 | 446.1 | -0.8 | -0.7 | 20.5 | 439.3 | 6.3 |
| 32 | 1110 0000 | 460.000 | 447.8 | -0.8 | -0.7 | 1.7 | 455.1 | -7.4 |
| 33 | 1101 1111 | 475.625 | 467.9 | 0.6 | 0.7 | 20.1 | 471.0 | -3.1 |
| 34 | 1101 1110 | 491.250 | 482.3 | 0.6 | 0.8 | 14.4 | 486.8 | -4.5 |
| 35 | 1101 1101 | 506.875 | 507.8 | -0.8 | -0.1 | 25.5 | 502.7 | 5.2 |
| 36 | 1101 1100 | 522.500 | 522.1 | -0.8 | -0.7 | 14.3 | 518.5 | 3.6 |
| 37 | 1101 1011 | 538.125 | 535.4 | -0.0 | -0.7 | 13.3 | 534.4 | 1.0 |
| 38 | 1101 1010 | 553.750 | 550.4 | 0.7 | 0.7 | 15.0 | 550.2 | 0.2 |
| 39 | 1101 1001 | 569.375 | 573.2 | 0.5 | 0.7 | 22.7 | 566.1 | 7.1 |
| 40 | 1101 1000 | 585.000 | 581.1 | -0.8 | -0.8 | 7.9 | 581.9 | -0.9 |
| 41 | 1101 0111 | 600.625 | 596.3 | -0.8 | -0.7 | 15.2 | 597.8 | -1.5 |
| 42 | 1101 0110 | 616.250 | 611.9 | 0.6 | 0.0 | 15.6 | 613.6 | -1.8 |
| 43 | 1101 0101 | 631.875 | 634.3 | 0.7 | 0.7 | 22.4 | 629.5 | 4.8 |
| 44 | 1101 0100 | 647.500 | 651.8 | -0.1 | 0.7 | 17.4 | 645.4 | 6.4 |
| 45 | 1101 0011 | 663.125 | 662.5 | -0.7 | -0.6 | 10.7 | 661.2 | 1.3 |
| 46 | 1101 0010 | 678.750 | 680.5 | -0.7 | -0.7 | 17.9 | 677.1 | 3.4 |
| 47 | 1101 0001 | 694.375 | 700.3 | 0.7 | 0.7 | 19.8 | 692.9 | 7.4 |
| 48 | 1101 0000 | 710.000 | 712.8 | 0.8 | 0.8 | 12.5 | 708.8 | 4.0 |
| 49 | 1100 1111 | 725.625 | 722.5 | -0.7 | 0.0 | 9.7 | 724.6 | -2.1 |
| 50 | 1100 1110 | 741.250 | 737.1 | -0.7 | -0.7 | 14.7 | 740.5 | -3.3 |
| 51 | 1100 1101 | 756.875 | 761.3 | -0.1 | -0.6 | 24.2 | 756.3 | 5.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 616
 1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-3 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 52 | 1100 1100 | 772.500 | 777.7 0.7 0.8 | 16.4 | 772.2 5.6 |
| 53 | 1100 1011 | 788.125 | 788.3 0.6 0.7 | 10.6 | 788.0 0.3 |
| 54 | 1100 1010 | 803.750 | 805.0 -0.7 -0.6 | 16.7 | 803.9 1.2 |
| 55 | 1100 1001 | 819.375 | 827.1 -0.7 -0.7 | 22.1 | 819.7 7.4 |
| 56 | 1100 1000 | 835.000 | 838.7 0.7 0.0 | 11.5 | 835.6 3.1 |
| 57 | 1100 0111 | 850.625 | 848.8 0.6 0.6 | 10.1 | 851.4 -2.7 |
| 58 | 1100 0110 | 866.250 | 865.4 -0.1 0.6 | 16.6 | 867.3 -1.9 |
| 59 | 1100 0101 | 881.875 | 888.0 -0.7 -0.7 | 22.6 | 883.1 4.9 |
| 60 | 1100 0100 | 897.500 | 909.2 -0.8 -0.7 | 21.2 | 899.0 10.2 |
| 61 | 1100 0011 | 913.125 | 914.9 0.5 0.5 | 5.7 | 914.9 0.1 |
| 62 | 1100 0010 | 928.750 | 933.0 0.6 0.6 | 18.0 | 930.7 2.2 |
| 63 | 1100 0001 | 944.375 | 953.7 -0.6 0.0 | 20.7 | 946.6 7.1 |
| 64 | 1100 0000 | 960.000 | 963.8 -0.8 -0.8 | 10.1 | 962.4 1.4 |
| 65 | 1011 1111 | 975.625 | 975.5 0.0 -0.7 | 11.8 | 978.3 -2.7 |
| 66 | 1011 1110 | 991.250 | 989.1 0.8 0.8 | 13.6 | 994.1 -5.0 |
| 67 | 1011 1101 | 1006.88 | 1014.8 0.7 0.6 | 25.7 | 1010.0 4.8 |
| 68 | 1011 1100 | 1022.50 | 1028.3 -0.7 -0.7 | 13.4 | 1025.8 2.4 |
| 69 | 1011 1011 | 1038.13 | 1041.9 -0.7 -0.7 | 13.6 | 1041.7 0.2 |
| 70 | 1011 1010 | 1053.75 | 1056.9 0.6 -0.0 | 14.9 | 1057.5 -0.7 |
| 71 | 1011 1001 | 1069.38 | 1080.4 0.7 0.7 | 23.5 | 1073.4 7.0 |
| 72 | 1011 1000 | 1085.00 | 1084.1 -0.1 0.7 | 3.7 | 1089.2 -5.1 |
| 73 | 1011 0111 | 1100.63 | 1102.3 -0.8 -0.7 | 18.2 | 1105.1 -2.8 |
| 74 | 1011 0110 | 1116.25 | 1118.3 -0.7 -0.7 | 16.0 | 1120.9 -2.6 |
| 75 | 1011 0101 | 1131.88 | 1141.3 0.7 0.6 | 23.0 | 1136.8 4.5 |
| 76 | 1011 0100 | 1147.50 | 1156.8 0.7 0.7 | 15.4 | 1152.6 4.1 |
| 77 | 1011 0011 | 1163.13 | 1168.2 -0.8 -0.2 | 11.4 | 1168.5 -0.3 |
| 78 | 1011 0010 | 1178.75 | 1185.9 -0.7 -0.7 | 17.7 | 1184.3 1.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 617

1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 :1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1207.3 | 0.0 | -0.7 | 21.5 | 1200.2 | 7.1 |
| 80 | 1011 0000 | 1210.00 | 1218.4 | 0.7 | 0.7 | 11.0 | 1216.1 | 2.3 |
| 81 | 1010 1111 | 1225.63 | 1227.1 | 0.7 | 0.7 | 8.7 | 1231.9 | -4.8 |
| 82 | 1010 1110 | 1241.25 | 1242.3 | -0.7 | -0.6 | 15.2 | 1247.8 | -5.4 |
| 83 | 1010 1101 | 1256.88 | 1267.7 | -0.7 | -0.8 | 25.4 | 1263.6 | 4.1 |
| 84 | 1010 1100 | 1272.50 | 1283.0 | 0.8 | -0.0 | 15.3 | 1279.5 | 3.5 |
| 85 | 1010 1011 | 1288.13 | 1293.2 | 0.7 | 0.7 | 10.2 | 1295.3 | -2.1 |
| 86 | 1010 1010 | 1303.75 | 1309.1 | -0.0 | 0.6 | 15.9 | 1311.2 | -2.0 |
| 87 | 1010 1001 | 1319.38 | 1333.0 | -0.7 | -0.7 | 23.8 | 1327.0 | 5.9 |
| 88 | 1010 1000 | 1335.00 | 1341.7 | -0.9 | -0.8 | 8.7 | 1342.9 | -1.2 |
| 89 | 1010 0111 | 1350.63 | 1353.4 | 0.7 | 0.7 | 11.7 | 1358.7 | -5.3 |
| 90 | 1010 0110 | 1366.25 | 1369.9 | 0.7 | 0.7 | 16.4 | 1374.6 | -4.7 |
| 91 | 1010 0101 | 1381.88 | 1393.8 | -0.7 | -0.1 | 23.9 | 1390.4 | 3.4 |
| 92 | 1010 0100 | 1397.50 | 1413.2 | -0.7 | -0.8 | 19.4 | 1406.3 | 6.9 |
| 93 | 1010 0011 | 1413.13 | 1419.9 | 0.2 | -0.6 | 6.7 | 1422.1 | -2.2 |
| 94 | 1010 0010 | 1428.75 | 1437.3 | 0.7 | 0.7 | 17.4 | 1438.0 | -0.7 |
| 95 | 1010 0001 | 1444.38 | 1458.4 | 0.8 | 0.8 | 21.1 | 1453.8 | 4.6 |
| 96 | 1010 0000 | 1460.00 | 1465.5 | -0.7 | -0.7 | 7.0 | 1469.7 | -4.2 |
| 97 | 1001 1111 | 1475.63 | 1480.0 | -0.6 | -0.6 | 14.6 | 1485.6 | -5.5 |
| 98 | 1001 1110 | 1491.25 | 1493.6 | 0.7 | 0.0 | 13.6 | 1501.4 | -7.8 |
| 99 | 1001 1101 | 1506.88 | 1519.5 | 0.7 | 0.7 | 25.8 | 1517.3 | 2.2 |
| 100 | 1001 1100 | 1522.50 | 1532.5 | 0.1 | 0.8 | 13.1 | 1533.1 | -0.6 |
| 101 | 1001 1011 | 1538.13 | 1546.2 | -0.7 | -0.7 | 13.7 | 1549.0 | -2.7 |
| 102 | 1001 1010 | 1553.75 | 1561.8 | -0.7 | -0.7 | 15.6 | 1564.8 | -3.0 |
| 103 | 1001 1001 | 1569.38 | 1584.8 | 0.7 | 0.7 | 23.0 | 1580.7 | 4.1 |
| 104 | 1001 1000 | 1585.00 | 1590.7 | 0.8 | 0.8 | 5.9 | 1596.5 | -5.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 618

1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



NOV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1606.5 | -0.7 | 0.0 | 15.9 | 1612.4 | -5.8 |
| 106 | 1001 0110 | 1616.25 | 1622.6 | -0.7 | -0.7 | 16.0 | 1628.2 | -5.7 |
| 107 | 1001 0101 | 1631.88 | 1646.2 | -0.1 | -0.8 | 23.6 | 1644.1 | 2.1 |
| 108 | 1001 0100 | 1647.50 | 1661.6 | 0.8 | 0.8 | 15.5 | 1659.9 | 1.7 |
| 109 | 1001 0011 | 1663.13 | 1671.7 | 0.8 | 0.8 | 10.0 | 1675.8 | -4.1 |
| 110 | 1001 0010 | 1678.75 | 1689.9 | -0.7 | -0.6 | 18.2 | 1691.6 | -1.7 |
| 111 | 1001 0001 | 1694.38 | 1711.7 | -0.7 | -0.8 | 21.8 | 1707.5 | 4.2 |
| 112 | 1001 0000 | 1710.00 | 1726.0 | 0.8 | 0.0 | 14.2 | 1723.3 | 2.6 |
| 113 | 1000 1111 | 1725.63 | 1731.3 | 0.7 | 0.7 | 5.3 | 1739.2 | -7.9 |
| 114 | 1000 1110 | 1741.25 | 1745.8 | -0.1 | 0.6 | 14.5 | 1755.1 | -9.2 |
| 115 | 1000 1101 | 1756.88 | 1771.8 | -0.7 | -0.6 | 26.0 | 1770.9 | 0.9 |
| 116 | 1000 1100 | 1772.50 | 1787.8 | -0.7 | -0.7 | 16.0 | 1786.8 | 1.1 |
| 117 | 1000 1011 | 1788.13 | 1797.3 | 0.7 | 0.7 | 9.4 | 1802.6 | -5.3 |
| 118 | 1000 1010 | 1803.75 | 1813.1 | 0.7 | 0.7 | 15.8 | 1818.5 | -5.4 |
| 119 | 1000 1001 | 1819.38 | 1837.2 | -0.7 | -0.1 | 24.1 | 1834.3 | 2.9 |
| 120 | 1000 1000 | 1835.00 | 1848.2 | -0.8 | -0.7 | 11.0 | 1850.2 | -2.0 |
| 121 | 1000 0111 | 1850.63 | 1858.2 | 0.0 | -0.7 | 10.0 | 1866.0 | -7.8 |
| 122 | 1000 0110 | 1866.25 | 1873.8 | 0.7 | 0.7 | 15.6 | 1881.9 | -8.0 |
| 123 | 1000 0101 | 1881.88 | 1897.0 | 0.6 | 0.8 | 23.2 | 1897.7 | -0.7 |
| 124 | 1000 0100 | 1897.50 | 1918.1 | -0.7 | -0.6 | 21.1 | 1913.6 | 4.5 |
| 125 | 1000 0011 | 1913.13 | 1924.1 | -0.7 | -0.8 | 6.0 | 1929.4 | -5.3 |
| 126 | 1000 0010 | 1928.75 | 1941.3 | 0.6 | -0.1 | 17.1 | 1945.3 | -4.0 |
| 127 | 1000 0001 | 1944.38 | 1962.6 | 0.7 | 0.7 | 21.3 | 1961.1 | 1.4 |
| 128 | 1000 0000 | 1960.00 | 1982.3 | -0.0 | 0.9 | 19.8 | 1977.0 | 5.3 |
| 129 | 0111 1111 | 1975.63 | 1989.5 | -0.8 | -0.7 | 7.2 | 1992.8 | -3.3 |
| 130 | 0111 1110 | 1991.25 | 2004.8 | -0.7 | -0.8 | 15.3 | 2008.7 | -3.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 619
 1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



01 11 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 :1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2030.0 | 0.7 | 0.7 | 25.1 | 2024.6 | 5.4 |
| 132 | 0111 1100 | 2022.50 | 2043.6 | 0.7 | 0.7 | 13.6 | 2040.4 | 3.2 |
| 133 | 0111 1011 | 2038.13 | 2055.8 | -0.8 | -0.1 | 12.1 | 2056.3 | -0.5 |
| 134 | 0111 1010 | 2053.75 | 2072.2 | -0.8 | -0.7 | 16.5 | 2072.1 | 0.1 |
| 135 | 0111 1001 | 2069.38 | 2096.6 | 0.0 | -0.7 | 24.3 | 2088.0 | 8.6 |
| 136 | 0111 1000 | 2085.00 | 2098.6 | 0.6 | 0.7 | 2.0 | 2103.8 | -5.3 |
| 137 | 0111 0111 | 2100.63 | 2115.6 | 0.7 | 0.8 | 17.0 | 2119.7 | -4.1 |
| 138 | 0111 0110 | 2116.25 | 2133.2 | -0.7 | -0.7 | 17.7 | 2135.5 | -2.3 |
| 139 | 0111 0101 | 2131.88 | 2157.4 | -0.7 | -0.7 | 24.2 | 2151.4 | 6.0 |
| 140 | 0111 0100 | 2147.50 | 2172.7 | 0.8 | 0.0 | 15.3 | 2167.2 | 5.5 |
| 141 | 0111 0011 | 2163.13 | 2181.2 | 0.7 | 0.7 | 8.4 | 2183.1 | -1.9 |
| 142 | 0111 0010 | 2178.75 | 2200.0 | -0.1 | 0.6 | 18.9 | 2198.9 | 1.1 |
| 143 | 0111 0001 | 2194.38 | 2223.0 | -0.8 | -0.8 | 23.0 | 2214.8 | 8.3 |
| 144 | 0111 0000 | 2210.00 | 2232.1 | -0.8 | -0.8 | 9.1 | 2230.6 | 1.5 |
| 145 | 0110 1111 | 2225.63 | 2241.0 | 0.7 | 0.7 | 8.9 | 2246.5 | -5.5 |
| 146 | 0110 1110 | 2241.25 | 2256.6 | 0.7 | 0.7 | 15.6 | 2262.3 | -5.8 |
| 147 | 0110 1101 | 2256.88 | 2283.0 | -0.7 | -0.0 | 26.4 | 2278.2 | 4.8 |
| 148 | 0110 1100 | 2272.50 | 2293.6 | -0.8 | 5.6 | 10.6 | 2294.0 | -0.5 |
| 149 | 0110 1011 | 2288.13 | 2308.1 | -0.0 | -0.6 | 14.5 | 2309.9 | -1.8 |
| 150 | 0110 1010 | 2303.75 | 2323.9 | 0.7 | 0.7 | 15.8 | 2325.8 | -1.9 |
| 151 | 0110 1001 | 2319.38 | 2347.9 | 0.7 | 0.8 | 24.0 | 2341.6 | 6.3 |
| 152 | 0110 1000 | 2335.00 | 2356.3 | -0.8 | -0.8 | 8.4 | 2357.5 | -1.2 |
| 153 | 0110 0111 | 2350.63 | 2368.3 | -0.7 | -0.8 | 12.0 | 2373.3 | -5.0 |
| 154 | 0110 0110 | 2366.25 | 2384.9 | 0.7 | -0.1 | 16.6 | 2389.2 | -4.3 |
| 155 | 0110 0101 | 2381.88 | 2408.6 | 0.7 | 0.7 | 23.7 | 2405.0 | 3.6 |
| 156 | 0110 0100 | 2397.50 | 2428.3 | -0.0 | 0.8 | 19.6 | 2420.9 | 7.4 |
| 157 | 0110 0011 | 2413.13 | 2434.0 | -0.8 | -0.7 | 5.7 | 2436.7 | -2.8 |

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 620

1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2453.0 | -1.0 | -0.9 | 19.0 | 2452.6 | 0.4 |
| 159 | 0110 0001 | 2444.38 | 2474.1 | 0.7 | 0.7 | 21.1 | 2468.4 | 5.7 |
| 160 | 0110 0000 | 2460.00 | 2477.8 | 0.8 | 0.8 | 3.7 | 2484.3 | -6.4 |
| 161 | 0101 1111 | 2475.63 | 2494.2 | -0.7 | 0.0 | 16.3 | 2500.1 | -6.0 |
| 162 | 0101 1110 | 2491.25 | 2509.5 | -0.8 | -0.8 | 15.3 | 2510 | -6.5 |
| 163 | 0101 1101 | 2506.88 | 2535.6 | 0.0 | -0.7 | 26.1 | 2535.8 | 3.7 |
| 164 | 0101 1100 | 2522.50 | 2549.1 | 0.7 | 0.8 | 13.5 | 2547.7 | 1.4 |
| 165 | 0101 1011 | 2538.13 | 2560.0 | 0.7 | 0.7 | 10.9 | 2563.5 | -3.5 |
| 166 | 0101 1010 | 2553.75 | 2576.8 | -0.7 | -0.7 | 16.8 | 2579.4 | -2.6 |
| 167 | 0101 1001 | 2569.38 | 2601.4 | -0.7 | -0.7 | 24.7 | 2595.3 | 6.2 |
| 168 | 0101 1000 | 2585.00 | 2605.3 | 0.8 | 0.1 | 3.9 | 2611.1 | -5.8 |
| 169 | 0101 0111 | 2600.63 | 2620.1 | 0.7 | 0.7 | 14.8 | 2627.0 | -6.8 |
| 170 | 0101 0110 | 2616.25 | 2637.1 | -0.1 | 0.6 | 17.0 | 2642.8 | -5.7 |
| 171 | 0101 0101 | 2631.88 | 2662.3 | -0.8 | -0.7 | 25.2 | 2658.7 | 3.6 |
| 172 | 0101 0100 | 2647.50 | 2678.8 | -0.9 | -0.8 | 16.5 | 2674.5 | 4.3 |
| 173 | 0101 0011 | 2663.13 | 2686.1 | 0.7 | 0.7 | 7.3 | 2690.4 | -4.3 |
| 174 | 0101 0010 | 2678.75 | 2704.4 | 0.7 | 0.8 | 10.3 | 2706.2 | -1.8 |
| 175 | 0101 0001 | 2694.38 | 2727.9 | -0.7 | -0.0 | 23.5 | 2722.1 | 5.8 |
| 176 | 0101 0000 | 2710.00 | 2740.8 | -0.8 | -0.8 | 13.0 | 2737.9 | 2.9 |
| 177 | 0100 1111 | 2725.63 | 2746.4 | 0.0 | -0.7 | 5.5 | 2753.8 | -7.4 |
| 178 | 0100 1110 | 2741.25 | 2761.1 | 0.8 | 0.7 | 14.8 | 2769.6 | -8.5 |
| 179 | 0100 1101 | 2756.88 | 2787.1 | 0.7 | 0.7 | 26.0 | 2785.5 | 1.6 |
| 180 | 0100 1100 | 2772.50 | 2805.2 | -0.8 | -0.7 | 18.1 | 2801.3 | 3.9 |
| 181 | 0100 1011 | 2788.13 | 2812.9 | -0.8 | -0.8 | 7.7 | 2817.7 | -4.3 |
| 182 | 0100 1010 | 2803.75 | 2828.5 | 0.7 | 0.0 | 15.6 | 2833.0 | -4.5 |
| 183 | 0100 1001 | 2819.38 | 2852.9 | 0.6 | 0.7 | 24.3 | 2848.9 | 4.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 621

1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=1)



11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2864.5 | -0.0 | 0.8 | 11.6 | 2864.8 | -0.2 |
| 185 | 0100 0111 | 2850.63 | 2873.1 | -0.8 | -0.7 | 8.6 | 2880.6 | -7.5 |
| 186 | 0100 0110 | 2866.25 | 2890.3 | -0.6 | -0.7 | 17.1 | 2896.5 | -6.2 |
| 187 | 0100 0101 | 2881.88 | 2913.7 | 0.7 | 0.7 | 23.4 | 2912.3 | 1.4 |
| 188 | 0100 0100 | 2897.50 | 2934.4 | 0.7 | 0.7 | 20.7 | 2928.2 | 6.2 |
| 189 | 0100 0011 | 2913.13 | 2939.2 | -0.7 | 0.0 | 4.7 | 2944.0 | -4.9 |
| 190 | 0100 0010 | 2928.75 | 2957.9 | -0.8 | -0.7 | 18.7 | 2959.9 | -2.0 |
| 191 | 0100 0001 | 2944.38 | 2980.1 | -0.1 | -0.7 | 22.2 | 2975.7 | 4.4 |
| 192 | 0100 0000 | 2960.00 | 2993.3 | 0.8 | 0.9 | 13.2 | 2991.6 | 1.7 |
| 193 | 0011 1111 | 2975.63 | 2998.7 | 0.7 | 0.8 | 5.4 | 3007.4 | -8.7 |
| 194 | 0011 1110 | 2991.25 | 3014.6 | -0.8 | -0.8 | 15.9 | 3023.3 | -8.7 |
| 195 | 0011 1101 | 3006.88 | 3041.5 | -0.8 | -0.8 | 26.9 | 3039.1 | 2.4 |
| 196 | 0011 1100 | 3022.50 | 3053.7 | 0.8 | 0.0 | 12.1 | 3055.0 | -1.3 |
| 197 | 0011 1011 | 3038.13 | 3065.6 | 0.7 | 0.7 | 11.9 | 3070.8 | -5.3 |
| 198 | 0011 1010 | 3053.75 | 3081.7 | 0.0 | 0.8 | 16.1 | 3086.7 | -5.0 |
| 199 | 0011 1001 | 3069.38 | 3107.8 | -0.9 | -0.7 | 26.1 | 3102.5 | 5.3 |
| 200 | 0011 1000 | 3085.00 | 3109.4 | -0.8 | -0.7 | 1.6 | 3118.4 | -9.0 |
| 201 | 0011 0111 | 3100.63 | 3126.1 | 0.7 | 0.7 | 16.6 | 3134.2 | -8.2 |
| 202 | 0011 0110 | 3116.25 | 3143.0 | 0.7 | 0.8 | 16.9 | 3150.1 | -7.1 |
| 203 | 0011 0101 | 3131.88 | 3169.0 | -0.7 | 0.0 | 26.0 | 3166.0 | 3.0 |
| 204 | 0011 0100 | 3147.50 | 3184.4 | 0.6 | -0.8 | 15.4 | 3181.8 | 2.6 |
| 205 | 0011 0011 | 3163.13 | 3193.3 | -0.2 | -0.3 | 8.9 | 3197.7 | -4.4 |
| 206 | 0011 0010 | 3178.75 | 3210.7 | 0.7 | 0.8 | 17.5 | 3213.5 | -2.8 |
| 207 | 0011 0001 | 3194.38 | 3234.4 | -0.1 | 0.8 | 23.6 | 3229.4 | 5.0 |
| 208 | 0011 0000 | 3210.00 | 3246.9 | -0.8 | -0.8 | 12.5 | 3245.2 | 1.7 |
| 209 | 0010 1111 | 3225.63 | 3253.3 | -0.7 | -0.7 | 6.3 | 3261.1 | -7.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 622

1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3248.1 | 0.6 | -0.1 | 14.8 | 3276.9 | -8.9 |
| 211 | 0010 1101 | 3256.88 | 3294.8 | 0.6 | 0.7 | 26.7 | 3292.8 | 2.0 |
| 212 | 0010 1100 | 3272.50 | 3311.1 | -0.0 | 0.9 | 16.4 | 3308.6 | 2.5 |
| 213 | 0010 1011 | 3288.13 | 3320.3 | -0.8 | -0.7 | 9.2 | 3324.5 | -4.2 |
| 214 | 0010 1010 | 3303.75 | 3336.7 | -0.7 | -0.8 | 16.4 | 3340.3 | -3.6 |
| 215 | 0010 1001 | 3319.38 | 3361.2 | 0.6 | 0.8 | 24.4 | 3356.2 | 5.0 |
| 216 | 0010 1000 | 3335.00 | 3368.5 | 0.5 | 0.5 | 7.3 | 3372.0 | -3.5 |
| 217 | 0010 0111 | 3350.63 | 3381.0 | -0.8 | 0.0 | 12.5 | 3387.9 | -6.9 |
| 218 | 0010 0110 | 3366.25 | 3398.4 | -0.8 | -0.9 | 17.3 | 3403.7 | -5.4 |
| 219 | 0010 0101 | 3381.88 | 3423.4 | -0.0 | -0.7 | 25.0 | 3419.6 | 3.8 |
| 220 | 0010 0100 | 3397.50 | 3441.9 | 0.7 | 0.8 | 18.5 | 3435.5 | 6.4 |
| 221 | 0010 0011 | 3413.13 | 3447.6 | -0.1 | 0.7 | 5.7 | 3451.3 | -3.7 |
| 222 | 0010 0010 | 3428.75 | 3466.4 | -0.8 | -0.7 | 18.8 | 3467.2 | -0.8 |
| 223 | 0010 0001 | 3444.38 | 3489.7 | -0.8 | -0.7 | 23.2 | 3483.0 | 6.6 |
| 224 | 0010 0000 | 3460.00 | 3495.6 | 0.7 | -0.1 | 5.9 | 3498.9 | -3.3 |
| 225 | 0001 1111 | 3475.63 | 3507.8 | 0.7 | 0.8 | 12.3 | 3514.7 | -6.9 |
| 226 | 0001 1110 | 3491.25 | 3523.1 | -0.1 | 0.7 | 15.2 | 3530.6 | -7.5 |
| 227 | 0001 1101 | 3506.88 | 3551.3 | -0.8 | -0.7 | 28.2 | 3546.4 | 4.8 |
| 228 | 0001 1100 | 3522.50 | 3564.8 | -0.1 | -0.8 | 13.6 | 3562.3 | 2.6 |
| 229 | 0001 1011 | 3538.13 | 3575.3 | 0.7 | 0.7 | 10.4 | 3578.1 | -2.8 |
| 230 | 0001 1010 | 3553.75 | 3591.4 | 0.6 | 0.8 | 16.1 | 3594.0 | -2.6 |
| 231 | 0001 1001 | 3569.38 | 3617.8 | -0.8 | 0.0 | 26.4 | 3609.8 | 8.0 |
| 232 | 0001 1000 | 3585.00 | 3621.9 | -0.8 | -0.7 | 4.0 | 3625.7 | -3.8 |
| 233 | 0001 0111 | 3600.63 | 3637.0 | -0.0 | -0.7 | 15.1 | 3641.5 | -4.6 |
| 234 | 0001 0110 | 3616.25 | 3653.2 | 0.7 | 0.8 | 16.2 | 3657.4 | -4.2 |
| 235 | 0001 0101 | 3631.88 | 3679.1 | -0.2 | 0.7 | 25.9 | 3673.2 | 5.8 |
| 236 | 0001 0100 | 3647.50 | 3695.8 | -0.9 | -0.9 | 16.7 | 3689.1 | 6.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 623

1981/11/30 15:32:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3704.7 | -0.7 | -0.7 | 8.8 | 3705.0 | -0.3 |
| 238 | 0001 0010 | 3678.75 | 3721.8 | 0.6 | -0.1 | 17.1 | 3720.8 | 1.0 |
| 239 | 0001 0001 | 3694.38 | 3745.5 | -1.8 | 0.8 | 23.7 | 3736.7 | 8.8 |
| 240 | 0001 0000 | 3710.00 | 3761.0 | -0.1 | 0.9 | 15.5 | 3752.5 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3764.7 | -0.8 | -0.8 | 3.7 | 3768.4 | -3.7 |
| 242 | 0000 1110 | 3741.25 | 3780.1 | -0.1 | -0.7 | 15.4 | 3784.2 | -4.1 |
| 243 | 0000 1101 | 3756.88 | 3806.8 | 0.2 | 0.3 | 26.7 | 3800.1 | 6.8 |
| 244 | 0000 1100 | 3772.50 | 3823.3 | 0.8 | 0.8 | 16.5 | 3815.9 | 7.4 |
| 245 | 0000 1011 | 3788.13 | 3832.2 | -0.8 | 0.1 | 8.9 | 3831.8 | 0.5 |
| 246 | 0000 1010 | 3803.75 | 3849.0 | -0.9 | -0.9 | 16.8 | 3847.6 | 1.4 |
| 247 | 0000 1001 | 3819.38 | 3874.2 | -0.2 | -0.7 | 25.2 | 3863.5 | 10.7 |
| 248 | 0000 1000 | 3835.00 | 3886.3 | 0.7 | 0.8 | 12.1 | 3879.3 | 7.0 |
| 249 | 0000 0111 | 3850.63 | 3892.8 | -0.0 | 0.8 | 6.5 | 3895.2 | -2.4 |
| 250 | 0000 0110 | 3866.25 | 3910.9 | -0.9 | -0.7 | 18.0 | 3911.0 | -0.2 |
| 251 | 0000 0101 | 3881.88 | 3936.1 | -0.9 | -0.7 | 25.2 | 3926.9 | 9.2 |
| 252 | 0000 0100 | 3897.50 | 3956.0 | 0.6 | 0.1 | 20.0 | 3942.7 | 13.3 |
| 253 | 0000 0011 | 3913.13 | 3960.6 | 0.8 | 0.9 | 4.6 | 3958.6 | 2.0 |
| 254 | 0000 0010 | 3928.75 | 3978.9 | -0.2 | 0.8 | 18.3 | 3974.5 | 4.4 |
| 255 | 0000 0001 | 3944.38 | 4003.1 | -1.0 | -0.7 | 24.2 | 3990.3 | 12.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 624
 1981/11/30 15:38:25 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)
 S U M M A R Y



71 23 51

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.861X - 42.5MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.511%
 OFFSET IS: -42.5MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998620$
 ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.605MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.1MV | 231 | 15.924MV | 1.6MV | 200 | 5.858MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.8MV | 213 | -0.107MV | -4.1MV | 174 | .756MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.8MV | 218 | -0.014MV | -1.0MV | 86 | .602MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 625

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4. SENSOR=2)

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -30.1 | -0.9 | -0.6 | | -26.7 | -3.5 |
| 2 | 1111 1110 | -8.750 | -18.4 | -0.8 | -0.7 | 11.7 | -10.8 | -7.6 |
| 3 | 1111 1101 | 6.875 | 4.7 | 0.6 | 0.0 | 23.1 | 5.0 | -0.3 |
| 4 | 1111 1100 | 22.500 | 16.8 | 0.6 | 0.6 | 12.0 | 20.9 | -4.1 |
| 5 | 1111 1011 | 38.125 | 36.6 | -0.7 | 0.0 | 19.8 | 36.8 | -0.2 |
| 6 | 1111 1010 | 53.750 | 49.6 | -0.7 | -0.7 | 13.0 | 52.6 | -3.0 |
| 7 | 1111 1001 | 69.375 | 72.6 | -0.1 | -0.6 | 23.1 | 68.5 | 4.2 |
| 8 | 1111 1000 | 85.000 | 76.4 | 0.6 | 0.7 | 3.8 | 84.3 | -7.9 |
| 9 | 1111 0111 | 100.625 | 97.6 | 0.5 | 0.6 | 21.1 | 100.2 | -2.6 |
| 10 | 1111 0110 | 116.250 | 112.0 | -0.8 | 0.0 | 14.4 | 116.1 | -4.0 |
| 11 | 1111 0101 | 131.875 | 134.2 | -0.7 | -0.7 | 22.2 | 131.9 | 2.3 |
| 12 | 1111 0100 | 147.500 | 148.5 | 0.5 | -0.1 | 14.2 | 147.8 | 0.7 |
| 13 | 1111 0011 | 163.125 | 164.1 | 0.6 | 0.6 | 15.6 | 163.6 | 0.5 |
| 14 | 1111 0010 | 178.750 | 179.4 | -0.1 | 0.7 | 15.2 | 179.5 | -0.2 |
| 15 | 1111 0001 | 194.375 | 200.9 | -0.7 | -0.6 | 21.5 | 195.4 | 5.5 |
| 16 | 1111 0000 | 210.000 | 209.1 | -0.7 | -0.6 | 8.2 | 211.2 | -2.1 |
| 17 | 1110 1111 | 225.625 | 225.0 | 0.6 | 0.0 | 15.9 | 227.1 | -2.1 |
| 18 | 1110 1110 | 241.250 | 237.0 | 0.6 | 0.7 | 12.0 | 243.0 | -6.0 |
| 19 | 1110 1101 | 256.875 | 261.2 | -0.7 | -0.0 | 24.2 | 258.8 | 2.4 |
| 20 | 1110 1100 | 272.500 | 276.1 | -0.7 | -0.6 | 14.8 | 274.7 | 1.4 |
| 21 | 1110 1011 | 288.125 | 292.3 | -0.1 | -0.7 | 16.2 | 290.5 | 1.7 |
| 22 | 1110 1010 | 303.750 | 304.9 | 0.6 | 0.7 | 12.6 | 306.4 | -1.5 |
| 23 | 1110 1001 | 319.375 | 327.6 | 0.6 | 0.7 | 22.7 | 322.3 | 5.3 |
| 24 | 1110 1000 | 335.000 | 337.4 | -0.8 | 0.0 | 9.8 | 338.1 | -0.7 |
| 25 | 1110 0111 | 350.625 | 353.7 | -0.7 | -0.7 | 16.3 | 354.0 | -0.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 626

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)

HAG
TEST
527

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 367.3 | 0.6 | -0.1 | 13.6 | 369.8 | -2.6 |
| 27 | 1110 0101 | 381.875 | 389.1 | 0.6 | 0.7 | 21.8 | 385.7 | 3.4 |
| 28 | 1110 0100 | 397.500 | 407.2 | -0.1 | 0.5 | 18.0 | 401.6 | 5.6 |
| 29 | 1110 0011 | 413.125 | 420.2 | -0.7 | -0.7 | 13.1 | 417.4 | 2.8 |
| 30 | 1110 0010 | 428.750 | 435.9 | -0.7 | -0.7 | 15.6 | 433.3 | 2.6 |
| 31 | 1110 0001 | 444.375 | 455.5 | 0.5 | 0.0 | 19.6 | 449.1 | 6.4 |
| 32 | 1110 0000 | 460.000 | 461.3 | 0.7 | 0.8 | 5.7 | 465.0 | -3.7 |
| 33 | 1101 1111 | 475.625 | 481.6 | -0.7 | 0.0 | 20.3 | 480.9 | 0.7 |
| 34 | 1101 1110 | 491.250 | 492.9 | -0.7 | -0.7 | 11.3 | 496.7 | -3.8 |
| 35 | 1101 1101 | 506.875 | 517.1 | -0.1 | -0.7 | 24.2 | 512.6 | 4.5 |
| 36 | 1101 1100 | 522.500 | 528.6 | 0.6 | 0.6 | 11.5 | 528.5 | 0.2 |
| 37 | 1101 1011 | 538.125 | 547.4 | 0.6 | 0.7 | 18.8 | 544.3 | 3.1 |
| 38 | 1101 1010 | 553.750 | 560.8 | -0.7 | -0.0 | 13.4 | 560.2 | 0.7 |
| 39 | 1101 1001 | 569.375 | 583.9 | -0.7 | -0.6 | 23.0 | 576.0 | 7.8 |
| 40 | 1101 1000 | 585.000 | 589.9 | 0.7 | -0.1 | 6.0 | 591.9 | -2.0 |
| 41 | 1101 0111 | 600.625 | 608.6 | 0.6 | 0.6 | 18.7 | 607.8 | 0.8 |
| 42 | 1101 0110 | 616.250 | 622.1 | 0.0 | 0.7 | 13.5 | 623.6 | -1.6 |
| 43 | 1101 0101 | 631.875 | 645.1 | -0.7 | -0.6 | 23.1 | 639.5 | 5.7 |
| 44 | 1101 0100 | 647.500 | 660.6 | -0.7 | -0.7 | 15.4 | 655.3 | 5.2 |
| 45 | 1101 0011 | 663.125 | 672.2 | 0.6 | 0.0 | 11.7 | 671.2 | 1.0 |
| 46 | 1101 0010 | 678.750 | 689.7 | 0.6 | 0.7 | 17.4 | 687.1 | 2.6 |
| 47 | 1101 0001 | 694.375 | 711.2 | -0.7 | 0.0 | 21.5 | 702.9 | 8.3 |
| 48 | 1101 0000 | 710.000 | 723.1 | -0.6 | -0.6 | 11.9 | 718.8 | 4.3 |
| 49 | 1100 1111 | 725.625 | 735.9 | -0.0 | -0.6 | 12.8 | 734.6 | 1.2 |
| 50 | 1100 1110 | 741.250 | 746.9 | 0.6 | 0.6 | 11.0 | 750.5 | -3.6 |
| 51 | 1100 1101 | 756.875 | 770.7 | 0.6 | 0.6 | 23.8 | 766.4 | 4.3 |

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HS-276 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 627

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=2)

| THRESHOLD
NUMBER | A/D
THRESHOLD | OUTPUT
VALUE
(MV) | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 | 1100 | 772.500 | 782.9 | -0.6 | -0.2 | 12.3 | 782.2 | 0.7 |
| 53 | 1100 | 1011 | 788.125 | 799.1 | -0.6 | -0.6 | 16.1 | 798.1 | 1.0 |
| 54 | 1100 | 1010 | 803.750 | 814.3 | 0.7 | -0.0 | 15.2 | 814.0 | 0.3 |
| 55 | 1100 | 1001 | 819.375 | 836.8 | 0.6 | 0.6 | 22.5 | 829.8 | 7.0 |
| 56 | 1100 | 1000 | 835.000 | 848.7 | 0.0 | 0.7 | 11.9 | 845.7 | 3.0 |
| 57 | 1100 | 0111 | 850.625 | 862.7 | -0.7 | -0.6 | 14.0 | 861.5 | 1.2 |
| 58 | 1100 | 0110 | 866.250 | 876.7 | -0.7 | -0.7 | 13.9 | 877.4 | -0.7 |
| 59 | 1100 | 0101 | 881.875 | 897.9 | 0.6 | -0.0 | 21.3 | 893.3 | 4.7 |
| 60 | 1100 | 0100 | 897.500 | 916.2 | 0.6 | 0.6 | 18.3 | 909.1 | 7.1 |
| 61 | 1100 | 0011 | 913.125 | 926.1 | -0.6 | 0.0 | 9.8 | 925.0 | 1.1 |
| 62 | 1100 | 0010 | 928.750 | 943.9 | -0.7 | -0.7 | 17.9 | 940.8 | 3.1 |
| 63 | 1100 | 0001 | 944.375 | 964.0 | 0.0 | -0.6 | 20.0 | 956.7 | 7.3 |
| 64 | 1100 | 0000 | 960.000 | 973.3 | 0.6 | 0.7 | 9.3 | 972.6 | 0.7 |
| 65 | 1011 | 1111 | 975.625 | 989.3 | 0.7 | 0.7 | 16.0 | 988.4 | 0.8 |
| 66 | 1011 | 1110 | 991.250 | 1000.4 | -0.7 | -0.1 | 11.1 | 1004.3 | -3.9 |
| 67 | 1011 | 1101 | 1006.88 | 1024.8 | -0.7 | -0.7 | 24.4 | 1020.1 | 4.6 |
| 68 | 1011 | 1100 | 1022.50 | 1039.8 | 0.6 | -0.0 | 11.0 | 1036.0 | -0.2 |
| 69 | 1011 | 1011 | 1038.13 | 1051.5 | 0.7 | 0.7 | 15.7 | 1051.9 | -0.3 |
| 70 | 1011 | 1010 | 1053.75 | 1067.1 | 0.0 | 0.6 | 15.5 | 1067.7 | -0.7 |
| 71 | 1011 | 1001 | 1069.38 | 1091.6 | -0.7 | -0.7 | 24.6 | 1083.6 | 8.0 |
| 72 | 1011 | 1000 | 1085.00 | 1094.8 | -0.8 | -0.7 | 3.2 | 1099.5 | -4.7 |
| 73 | 1011 | 0111 | 1100.63 | 1112.1 | 0.7 | 0.0 | 17.3 | 1115.3 | -0.2 |
| 74 | 1011 | 0110 | 1116.25 | 1128.4 | 0.7 | 0.6 | 16.2 | 1131.2 | -2.6 |
| 75 | 1011 | 0101 | 1131.88 | 1152.0 | -0.6 | -0.0 | 20.6 | 1147.0 | 4.9 |
| 76 | 1011 | 0100 | 1147.50 | 1166.1 | -0.7 | -0.6 | 14.1 | 1162.9 | 3.2 |
| 77 | 1011 | 0011 | 1163.13 | 1179.0 | 0.0 | -0.7 | 13.0 | 1178.8 | 0.3 |
| 78 | 1011 | 0010 | 1176.75 | 1195.6 | 0.7 | 0.6 | 16.5 | 1194.6 | 1.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 628

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1217.5 | 0.5 | 0.6 | 21.9 | 1210.5 | 7.0 |
| 80 | 1011 0000 | 1210.00 | 1228.8 | -0.7 | 0.0 | 11.3 | 1226.3 | 2.5 |
| 81 | 1010 1111 | 1225.63 | 1242.5 | -0.6 | -0.6 | 13.6 | 1242.2 | 0.3 |
| 82 | 1010 1110 | 1241.25 | 1252.4 | 0.7 | -0.1 | 9.9 | 1258.1 | -5.7 |
| 83 | 1010 1101 | 1256.88 | 1276.5 | 0.7 | 0.6 | 24.1 | 1273.9 | 2.6 |
| 84 | 1010 1100 | 1272.50 | 1286.2 | 0.0 | 0.6 | 9.7 | 1289.8 | -3.6 |
| 85 | 1010 1011 | 1288.13 | 1304.4 | -0.6 | -0.6 | 18.2 | 1305.6 | -1.2 |
| 86 | 1010 1010 | 1303.75 | 1320.3 | -0.9 | -1.0 | 15.8 | 1321.5 | -1.2 |
| 87 | 1010 1001 | 1319.38 | 1343.1 | 0.7 | 0.0 | 22.8 | 1337.4 | 5.8 |
| 88 | 1010 1000 | 1335.00 | 1351.0 | 0.8 | 0.8 | 7.9 | 1353.2 | -2.2 |
| 89 | 1010 0111 | 1350.63 | 1364.9 | -0.6 | 0.0 | 13.9 | 1369.1 | -4.2 |
| 90 | 1010 0110 | 1366.25 | 1381.5 | -0.6 | -0.7 | 16.6 | 1384.9 | -3.4 |
| 91 | 1010 0101 | 1381.88 | 1404.2 | -0.0 | -0.7 | 22.7 | 1400.8 | 3.4 |
| 92 | 1010 0100 | 1397.50 | 1420.8 | 0.6 | 0.6 | 16.6 | 1416.7 | 4.2 |
| 93 | 1010 0011 | 1413.13 | 1430.4 | 0.7 | 0.6 | 9.5 | 1432.5 | -2.2 |
| 94 | 1010 0010 | 1428.75 | 1448.7 | -0.7 | -0.0 | 18.3 | 1448.4 | 0.3 |
| 95 | 1010 0001 | 1444.38 | 1469.9 | -0.6 | -0.6 | 21.3 | 1464.3 | 5.7 |
| 96 | 1010 0000 | 1460.00 | 1478.4 | 0.7 | 0.0 | 8.4 | 1480.1 | -1.7 |
| 97 | 1001 1111 | 1475.63 | 1494.4 | -3.4 | 0.7 | 16.0 | 1496.0 | -1.6 |
| 98 | 1001 1110 | 1491.25 | 1504.4 | 0.0 | 0.7 | 10.0 | 1511.8 | -7.4 |
| 99 | 1001 1101 | 1506.88 | 1529.6 | -0.6 | -0.6 | 25.1 | 1527.7 | 1.9 |
| 100 | 1001 1100 | 1522.50 | 1536.7 | -0.6 | -0.6 | 7.1 | 1543.6 | -6.9 |
| 101 | 1001 1011 | 1538.13 | 1556.3 | 0.6 | -0.0 | 19.6 | 1559.4 | -3.1 |
| 102 | 1001 1010 | 1553.75 | 1571.6 | 0.7 | 0.6 | 15.3 | 1575.3 | -3.7 |
| 103 | 1001 1001 | 1569.38 | 1596.2 | -0.6 | 0.1 | 24.7 | 1591.1 | 5.1 |
| 104 | 1001 1000 | 1585.00 | 1601.8 | -0.7 | -0.7 | 5.6 | 1607.0 | -5.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 629
 1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)

| THRESHOLD
NUMBER | A/D
THRESHOLD | OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|---------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 | 0111 | 1600.63 | 1617.5 | 0.0 | -0.6 | 15.7 | 1622.9 | -5.4 |
| 106 | 1001 | 0110 | 1616.25 | 1632.9 | 0.7 | 0.8 | 15.4 | 1638.7 | -5.9 |
| 107 | 1001 | 0101 | 1631.88 | 1656.0 | 0.7 | 0.7 | 23.1 | 1654.6 | 1.4 |
| 108 | 1001 | 0100 | 1647.50 | 1671.5 | -0.7 | -0.1 | 15.5 | 1670.4 | 1.0 |
| 109 | 1001 | 0011 | 1663.13 | 1683.5 | -0.7 | -0.7 | 12.0 | 1686.3 | -2.8 |
| 110 | 1001 | 0010 | 1678.75 | 1700.1 | 0.7 | -0.0 | 16.5 | 1702.2 | -2.1 |
| 111 | 1001 | 0001 | 1694.38 | 1721.7 | 0.6 | 0.6 | 21.6 | 1718.0 | 3.7 |
| 112 | 1001 | 0000 | 1710.00 | 1736.7 | -0.1 | 0.6 | 14.9 | 1733.9 | 2.8 |
| 113 | 1000 | 1111 | 1725.63 | 1747.1 | -0.6 | -0.6 | 10.5 | 1749.8 | -2.6 |
| 114 | 1000 | 1110 | 1741.25 | 1757.6 | -0.7 | -0.7 | 10.4 | 1765.6 | -8.1 |
| 115 | 1000 | 1101 | 1756.88 | 1781.1 | 0.7 | 0.0 | 23.5 | 1781.5 | -0.4 |
| 116 | 1000 | 1100 | 1772.50 | 1791.2 | 0.7 | 0.7 | 10.1 | 1797.3 | -6.1 |
| 117 | 1000 | 1011 | 1788.13 | 1808.9 | -0.7 | 0.0 | 17.7 | 1813.2 | -4.3 |
| 118 | 1000 | 1010 | 1803.75 | 1824.9 | -0.6 | -0.6 | 16.0 | 1829.1 | -4.1 |
| 119 | 1000 | 1001 | 1819.38 | 1847.8 | -0.0 | -0.6 | 22.9 | 1844.9 | 2.9 |
| 120 | 1000 | 1000 | 1835.00 | 1858.2 | 0.8 | 0.6 | 10.4 | 1860.8 | -2.6 |
| 121 | 1000 | 0111 | 1850.63 | 1868.9 | 0.7 | 0.7 | 10.7 | 1876.6 | -7.8 |
| 122 | 1000 | 0110 | 1866.25 | 1885.8 | -0.7 | 0.0 | 16.9 | 1892.5 | -6.7 |
| 123 | 1000 | 0101 | 1881.88 | 1908.7 | -0.7 | -0.7 | 22.8 | 1908.4 | 0.3 |
| 124 | 1000 | 0100 | 1897.50 | 1926.5 | -0.1 | -0.8 | 17.8 | 1924.2 | 2.3 |
| 125 | 1000 | 0011 | 1913.13 | 1934.6 | 0.6 | 0.6 | 8.1 | 1940.1 | -5.4 |
| 126 | 1000 | 0010 | 1928.75 | 1952.3 | -0.0 | 0.6 | 17.7 | 1955.9 | -3.6 |
| 127 | 1000 | 0001 | 1944.38 | 1974.0 | -0.6 | -0.6 | 21.6 | 1971.8 | 2.2 |
| 128 | 1000 | 0000 | 1960.00 | 1990.9 | -0.7 | -0.7 | 16.9 | 1987.7 | 3.2 |
| 129 | 0111 | 1111 | 1975.63 | 2001.3 | -0.6 | 0.1 | 10.4 | 2003.5 | -2.2 |
| 130 | 0111 | 1110 | 1991.25 | 2015.4 | 0.7 | 0.7 | 14.1 | 2019.4 | -4.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 630

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)

HAC
TFST
527

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LGWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 131 | 0111 1101 | 2006.88 | 2040.0 -0.1 0.6 | 24.6 | 2035.3 4.7 |
| 132 | 0111 1100 | 2022.50 | 2046.7 -0.7 -0.7 | 6.7 | 2051.1 -4.5 |
| 133 | 0111 1011 | 2038.13 | 2066.9 -0.1 -0.7 | 20.3 | 2067.0 -0.0 |
| 134 | 0111 1010 | 2053.75 | 2082.4 0.6 0.6 | 15.4 | 2082.8 -0.5 |
| 135 | 0111 1001 | 2069.38 | 2106.8 0.6 0.6 | 24.5 | 2098.7 8.1 |
| 136 | 0111 1000 | 2085.10 | 2109.8 -0.8 0.0 | 2.9 | 2114.6 -4.8 |
| 137 | 0111 0111 | 2100.63 | 2127.4 -0.7 -0.7 | 17.6 | 2130.4 -3.0 |
| 138 | 0111 0110 | 2116.25 | 2144.6 -0.1 -0.9 | 17.2 | 2146.3 -1.6 |
| 139 | 0111 0101 | 2131.88 | 2167.0 0.7 0.7 | 22.4 | 2162.1 4.9 |
| 140 | 0111 0100 | 2147.50 | 2182.6 0.1 0.6 | 15.6 | 2178.0 4.6 |
| 141 | 0111 0011 | 2163.13 | 2193.7 -0.7 -0.7 | 11.1 | 2193.9 -0.1 |
| 142 | 0111 0010 | 2178.75 | 2215.0 -0.7 -0.7 | 21.3 | 2209.7 5.0 |
| 143 | 0111 0001 | 2194.38 | 2232.8 0.7 0.4 | 17.8 | 2225.6 7.2 |
| 144 | 0111 0000 | 2210.00 | 2235.2 0.7 0.7 | 2.4 | 2241.4 -6.2 |
| 145 | 0110 1111 | 2225.63 | 2252.5 0.0 0.6 | 17.2 | 2257.3 -4.9 |
| 146 | 0110 1110 | 2241.25 | 2268.8 -0.6 -0.7 | 16.3 | 2273.2 -4.4 |
| 147 | 0110 1101 | 2256.88 | 2293.1 0.0 -0.7 | 24.3 | 2289.0 4.1 |
| 148 | 0110 1100 | 2272.50 | 2301.7 0.7 0.7 | 8.6 | 2304.9 -3.2 |
| 149 | 0110 1011 | 2288.13 | 2318.4 0.7 0.7 | 16.7 | 2320.8 -2.3 |
| 150 | 0110 1010 | 2303.75 | 2338.0 -0.6 0.1 | 19.6 | 2336.6 1.4 |
| 151 | 0110 1001 | 2319.38 | 2359.9 -0.6 -0.7 | 21.9 | 2352.5 7.4 |
| 152 | 0110 1000 | 2335.00 | 2366.0 -0.0 -0.7 | 6.1 | 2368.3 -2.3 |
| 153 | 0110 0111 | 2350.63 | 2379.0 0.6 0.6 | 13.0 | 2384.2 -5.2 |
| 154 | 0110 0110 | 2366.25 | 2396.5 0.0 0.7 | 17.5 | 2400.1 -3.5 |
| 155 | 0110 0101 | 2381.88 | 2420.2 -0.7 -0.7 | 23.7 | 2415.9 4.3 |
| 156 | 0110 0100 | 2397.50 | 2438.1 -0.6 -0.6 | 17.9 | 2431.8 6.3 |
| 157 | 0110 0011 | 2413.13 | 2445.2 0.8 0.0 | 7.1 | 2447.6 -2.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 631
1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 158 | 0110 0010 | 2428.75 | 2468.0 -3.5 0.7 | 22.8 | 2463.5 4.5 |
| 159 | 0110 0001 | 2444.38 | 2485.8 0.1 0.7 | 17.7 | 2479.4 6.4 |
| 160 | 0110 0000 | 2460.00 | 2492.6 -0.7 -0.8 | 6.8 | 2495.2 -2.6 |
| 161 | 0101 1111 | 2475.63 | 2505.9 -0.0 -0.7 | 13.3 | 2511.1 -5.2 |
| 162 | 0101 1110 | 2491.25 | 2520.5 0.7 0.7 | 14.6 | 2526.9 -6.4 |
| 163 | 0101 1101 | 2506.88 | 2545.3 0.6 0.7 | 24.7 | 2542.8 7.4 |
| 164 | 0101 1100 | 2522.50 | 2552.0 -0.6 -0.0 | 6.7 | 2558.7 -6.7 |
| 165 | 0101 1011 | 2538.13 | 2571.8 -0.7 -0.7 | 19.8 | 2574.5 -2.7 |
| 166 | 0101 1010 | 2553.75 | 2587.7 -0.1 -0.6 | 15.9 | 2590.4 -2.7 |
| 167 | 0101 1001 | 2569.38 | 2612.0 0.7 0.6 | 24.3 | 2606.3 5.8 |
| 168 | 0101 1000 | 2585.00 | 2616.4 0.0 0.8 | 4.4 | 2622.1 -5.7 |
| 169 | 0101 0111 | 2600.63 | 2632.5 -0.7 -0.6 | 16.1 | 2638.0 -5.5 |
| 170 | 0101 0110 | 2616.25 | 2649.7 -0.8 -0.8 | 17.2 | 2653.8 -4.1 |
| 171 | 0101 0101 | 2631.88 | 2672.4 0.6 -0.0 | 22.7 | 2669.7 2.7 |
| 172 | 0101 0100 | 2647.50 | 2688.1 0.7 0.6 | 15.6 | 2685.6 2.5 |
| 173 | 0101 0011 | 2663.13 | 2698.0 0.0 0.7 | 9.9 | 2701.4 -3.5 |
| 174 | 0101 0010 | 2678.75 | 2720.3 -4.1 -0.7 | 22.3 | 2717.3 3.0 |
| 175 | 0101 0001 | 2694.38 | 2739.4 -0.0 -0.7 | 19.1 | 2733.1 6.3 |
| 176 | 0101 0000 | 2710.00 | 2750.9 0.6 0.6 | 11.5 | 2749.0 1.9 |
| 177 | 0100 1111 | 2725.63 | 2757.7 0.7 0.7 | 6.8 | 2764.9 -7.1 |
| 178 | 0100 1110 | 2741.25 | 2773.9 -0.8 -0.0 | 16.2 | 2780.7 -6.8 |
| 179 | 0100 1101 | 2756.88 | 2798.5 -0.8 -0.7 | 24.6 | 2796.6 1.9 |
| 180 | 0100 1100 | 2772.50 | 2808.3 -0.1 -0.8 | 9.8 | 2812.4 -4.1 |
| 181 | 0100 1011 | 2788.13 | 2823.6 0.6 0.7 | 15.2 | 2828.3 -4.7 |
| 182 | 0100 1010 | 2803.75 | 2840.3 -0.0 0.8 | 16.7 | 2844.2 -3.9 |
| 183 | 0100 1001 | 2819.38 | 2865.3 -0.7 -0.7 | 24.9 | 2860.0 5.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 632

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)

HAC
TEST
S27

REV 30 78

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 :1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2874.6 | -0.7 | -0.7 | 9.3 | 2875.9 | -1.3 |
| 185 | 0100 0111 | 2830.63 | 2884.4 | 0.6 | -0.0 | 9.8 | 2891.8 | -7.4 |
| 186 | 0100 0110 | 2866.25 | 2901.8 | 0.6 | 0.6 | 17.4 | 2907.6 | -5.8 |
| 187 | 0100 0101 | 2881.88 | 2925.1 | 0.0 | 0.7 | 23.3 | 2923.5 | 1.6 |
| 188 | 0100 0100 | 2897.50 | 2944.2 | -0.6 | -0.6 | 19.1 | 2939.3 | 4.9 |
| 189 | 0100 0011 | 2913.13 | 2951.2 | -0.0 | -0.7 | 7.0 | 2955.2 | -4.0 |
| 190 | 0100 0010 | 2928.75 | 2973.6 | -3.7 | 0.7 | 22.4 | 2971.1 | 2.6 |
| 191 | 0100 0001 | 2944.38 | 2991.2 | 0.6 | 0.7 | 17.5 | 2986.9 | 4.2 |
| 192 | 0100 0000 | 2960.00 | 3006.1 | -0.8 | -0.1 | 14.9 | 3002.8 | 3.3 |
| 193 | 0011 1111 | 2975.63 | 3011.6 | -0.7 | -0.8 | 5.5 | 3018.6 | -7.1 |
| 194 | 0011 1110 | 2991.25 | 3026.8 | -0.0 | -0.8 | 15.2 | 3034.5 | -7.7 |
| 195 | 0011 1101 | 3006.88 | 3051.4 | 0.7 | 0.7 | 24.6 | 3050.4 | 1.0 |
| 196 | 0011 1100 | 3022.50 | 3056.1 | 0.0 | 0.7 | 4.7 | 3066.2 | -10.2 |
| 197 | 0011 1011 | 3038.13 | 3077.8 | -0.7 | -0.7 | 21.7 | 3082.1 | -4.3 |
| 198 | 0011 1010 | 3053.75 | 3093.1 | -0.7 | -0.6 | 15.2 | 3097.9 | -4.9 |
| 199 | 0011 1001 | 3069.38 | 3118.5 | 0.6 | 0.0 | 25.5 | 3113.8 | 4.7 |
| 200 | 0011 1000 | 3085.00 | 3120.2 | 0.7 | 0.8 | 1.6 | 3129.7 | -9.5 |
| 201 | 0011 0111 | 3100.63 | 3138.2 | 0.0 | 0.7 | 18.0 | 3145.5 | -7.3 |
| 202 | 0011 0110 | 3116.25 | 3155.9 | -0.7 | -0.7 | 17.7 | 3161.4 | -5.5 |
| 203 | 0011 0101 | 3131.88 | 3180.2 | -0.1 | -0.7 | 24.3 | 3177.3 | 2.9 |
| 204 | 0011 0100 | 3147.50 | 3194.6 | 0.6 | 0.6 | 14.4 | 3193.1 | 1.4 |
| 205 | 0011 0011 | 3163.13 | 3204.8 | 0.7 | 0.7 | 10.2 | 3209.0 | -4.2 |
| 206 | 0011 0010 | 3178.75 | 3223.7 | -0.7 | 0.1 | 18.9 | 3224.8 | -1.2 |
| 207 | 0011 0001 | 3194.38 | 3247.2 | -0.7 | -0.7 | 23.5 | 3240.7 | 6.5 |
| 208 | 0011 0000 | 3210.00 | 3257.6 | -0.3 | -0.5 | 10.4 | 3256.6 | 1.0 |
| 209 | 0010 1111 | 3225.63 | 3265.0 | 0.7 | 0.7 | 7.4 | 3272.4 | -7.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 633

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=2)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3280.5 | -0.1 | 0.7 | 15.4 | 3288.3 | -7.8 |
| 211 | 0010 1101 | 3256.88 | 3303.5 | -0.8 | -0.7 | 26.0 | 3304.1 | 2.3 |
| 212 | 0010 1100 | 3272.50 | 3314.6 | -0.7 | -0.6 | 8.1 | 3320.0 | -5.4 |
| 213 | 0010 1011 | 3288.13 | 3331.3 | 0.8 | 0.0 | 16.7 | 3335.9 | -4.5 |
| 214 | 0010 1010 | 3303.75 | 3347.9 | 0.6 | 0.8 | 16.6 | 3351.7 | -3.8 |
| 215 | 0010 1001 | 3319.38 | 3373.2 | -0.1 | 0.6 | 25.3 | 3367.6 | 5.7 |
| 216 | 0010 1000 | 3335.00 | 3379.6 | -0.8 | -0.8 | 6.4 | 3383.4 | -3.8 |
| 217 | 0010 0111 | 3350.63 | 3393.4 | -0.6 | -0.6 | 13.8 | 3399.3 | -5.9 |
| 218 | 0010 0110 | 3366.25 | 3410.1 | 0.7 | 0.8 | 16.7 | 3415.2 | -5.1 |
| 219 | 0010 0101 | 3381.88 | 3434.3 | 0.6 | 0.7 | 24.2 | 3431.0 | 3.3 |
| 220 | 0010 0100 | 3397.50 | 3453.2 | -0.9 | -0.1 | 18.9 | 3446.9 | 6.3 |
| 221 | 0010 0011 | 3413.13 | 3460.2 | -0.7 | -0.7 | 7.0 | 3462.8 | -7.5 |
| 222 | 0010 0010 | 3428.75 | 3480.7 | 0.0 | -0.5 | 20.5 | 3478.6 | 2.1 |
| 223 | 0010 0001 | 3444.38 | 3500.9 | 0.7 | 0.8 | 20.2 | 3494.5 | 6.4 |
| 224 | 0010 0000 | 3460.00 | 3512.1 | 0.7 | 0.8 | 11.2 | 3510.3 | 1.8 |
| 225 | 0001 1111 | 3475.63 | 3521.4 | -0.7 | -0.7 | 9.3 | 3526.2 | -4.8 |
| 226 | 0001 1110 | 3491.25 | 3536.5 | -0.8 | -0.8 | 15.1 | 3542.1 | -5.5 |
| 227 | 0001 1101 | 3506.88 | 3561.5 | 0.6 | 0.0 | 25.0 | 3557.9 | 3.6 |
| 228 | 0001 1100 | 3522.50 | 3566.5 | 0.7 | 0.7 | 5.0 | 3573.8 | -7.3 |
| 229 | 0001 1011 | 3538.13 | 3587.3 | -0.1 | 0.7 | 20.8 | 3589.6 | -2.3 |
| 230 | 0001 1010 | 3553.75 | 3603.2 | -0.7 | -0.6 | 15.9 | 3605.5 | -2.3 |
| 231 | 0001 1001 | 3569.38 | 3630.3 | -0.8 | -0.6 | 27.1 | 3621.4 | 9.0 |
| 232 | 0001 1000 | 3585.00 | 3633.2 | 0.7 | 0.8 | 2.8 | 3637.2 | -4.1 |
| 233 | 0001 0111 | 3600.63 | 3649.0 | 0.6 | 0.7 | 15.8 | 3653.1 | -4.1 |
| 234 | 0001 0110 | 3616.25 | 3666.8 | -0.8 | -0.0 | 17.8 | 3660.9 | -2.1 |
| 235 | 0001 0101 | 3631.88 | 3691.5 | -0.8 | -0.7 | 24.7 | 3684.8 | 6.7 |
| 236 | 0001 0100 | 3647.50 | 3706.5 | -0.1 | -0.6 | 15.0 | 3700.7 | 5.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 634

1981/11/30 15:38:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=2)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3716.0 | 0.6 | 0.7 | 9.5 | 3716.5 | -0.6 |
| 238 | 0001 0010 | 3678.75 | 3735.3 | 0.7 | 0.6 | 19.3 | 3732.4 | 2.9 |
| 239 | 0001 0001 | 3694.38 | 3758.2 | -0.8 | -0.7 | 22.9 | 3748.3 | 10.0 |
| 240 | 0001 0000 | 3710.00 | 3773.9 | -0.8 | -0.8 | 15.6 | 3764.1 | 9.8 |
| 241 | 0000 1111 | 3725.63 | 3777.0 | 0.7 | 0.0 | 3.2 | 3780.0 | -2.9 |
| 242 | 0000 1110 | 3741.25 | 3792.5 | 0.6 | 0.7 | 15.4 | 3795.8 | -3.3 |
| 243 | 0000 1101 | 3757.88 | 3818.1 | -0.2 | 0.7 | 25.6 | 3811.7 | 6.4 |
| 244 | 0000 1100 | 3772.50 | 3827.7 | -0.7 | -0.7 | 9.5 | 3827.6 | 0.1 |
| 245 | 0000 1011 | 3788.13 | 3844.6 | -0.7 | -0.6 | 16.9 | 3843.4 | 1.1 |
| 246 | 0000 1010 | 3803.75 | 3860.6 | 0.6 | 0.7 | 16.0 | 3859.3 | 1.3 |
| 247 | 0000 1001 | 3819.38 | 3886.5 | 0.5 | 0.7 | 26.0 | 3875.1 | 11.4 |
| 248 | 0000 1000 | 3835.00 | 3896.4 | -0.9 | 0.1 | 9.8 | 3891.0 | 5.4 |
| 249 | 0000 0111 | 3850.63 | 3906.5 | -0.7 | -0.7 | 10.1 | 3906.9 | -0.3 |
| 250 | 0000 0110 | 3866.25 | 3923.9 | -0.2 | -0.8 | 17.4 | 3922.7 | 1.2 |
| 251 | 0000 0101 | 3881.88 | 3947.9 | 0.5 | 0.6 | 23.9 | 3938.6 | 9.3 |
| 252 | 0000 0100 | 3897.50 | 3965.9 | 0.6 | 0.7 | 18.0 | 3954.4 | 11.4 |
| 253 | 0000 0011 | 3913.13 | 3973.7 | -0.7 | -0.7 | 7.8 | 3970.3 | 3.3 |
| 254 | 0000 0010 | 3928.75 | 3992.4 | -0.8 | -0.8 | 18.7 | 3986.2 | 6.2 |
| 255 | 0000 0001 | 3944.38 | 4014.5 | 0.5 | 0.0 | 22.1 | 4002.0 | 12.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 635
 1981/11/30 15:45:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=3)
 S U M M A R Y



CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.852X - 44.0MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.453%
 OFFSET IS: -44.0MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998410$
 ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.647MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.6MV | 227 | 15.914MV | 1.7MV | 136 | 5.746MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.6MV | 202 | -0.073MV | -7.2MV | 228 | .562MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 3.1MV | 253 | 0.002MV | -0.6MV | 14 | .308MV |

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 636

1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -30.9 | -0.1 | 0.3 | | -28.1 | -2.7 |
| 2 | 1111 1110 | -8.750 | -18.6 | 0.4 | 0.5 | 12.2 | -12.3 | -6.3 |
| 3 | 1111 1101 | 6.875 | 5.6 | -0.4 | -0.3 | 24.2 | 3.6 | 2.1 |
| 4 | 1111 1100 | 22.500 | 18.0 | -0.2 | -0.2 | 12.4 | 19.4 | -1.4 |
| 5 | 1111 1011 | 38.125 | 35.3 | 0.4 | -0.4 | 17.3 | 35.3 | 0.1 |
| 6 | 1111 1010 | 53.750 | 49.1 | 0.5 | 0.5 | 13.8 | 51.1 | -2.0 |
| 7 | 1111 1001 | 69.375 | 71.5 | -0.0 | 0.4 | 22.4 | 67.0 | 4.5 |
| 8 | 1111 1000 | 85.000 | 76.7 | -0.4 | -0.3 | 5.2 | 82.8 | -6.1 |
| 9 | 1111 0111 | 100.625 | 97.5 | -0.3 | -0.3 | 20.7 | 98.7 | -1.2 |
| 10 | 1111 0110 | 116.250 | 111.3 | 0.4 | 0.4 | 13.9 | 114.5 | -3.2 |
| 11 | 1111 0101 | 131.875 | 133.3 | 0.3 | 0.3 | 21.9 | 130.4 | 2.9 |
| 12 | 1111 0100 | 147.500 | 149.2 | -0.2 | -0.1 | 15.9 | 146.2 | 3.0 |
| 13 | 1111 0011 | 163.125 | 161.7 | -0.5 | -0.5 | 12.5 | 162.1 | -0.4 |
| 14 | 1111 0010 | 178.750 | 179.9 | -0.1 | -0.6 | 18.1 | 177.9 | 1.9 |
| 15 | 1111 0001 | 194.375 | 199.4 | 0.2 | 0.3 | 19.5 | 193.8 | 5.6 |
| 16 | 1111 0000 | 210.000 | 208.3 | 0.3 | 0.3 | 8.9 | 209.6 | -1.4 |
| 17 | 1110 1111 | 225.625 | 224.4 | -0.3 | -0.3 | 16.1 | 225.5 | -1.1 |
| 18 | 1110 1110 | 241.250 | 237.2 | -0.5 | -0.5 | 12.8 | 241.3 | -4.2 |
| 19 | 1110 1101 | 256.875 | 260.3 | 0.2 | 0.0 | 23.2 | 257.2 | 3.2 |
| 20 | 1110 1100 | 272.500 | 275.5 | 0.1 | 0.2 | 15.1 | 273.0 | 2.5 |
| 21 | 1110 1011 | 288.125 | 288.5 | -0.0 | 0.1 | 13.0 | 288.9 | -0.4 |
| 22 | 1110 1010 | 303.750 | 305.0 | -0.5 | -0.5 | 16.5 | 304.7 | 0.3 |
| 23 | 1110 1001 | 319.375 | 326.7 | -0.3 | -0.3 | 21.7 | 320.6 | 6.1 |
| 24 | 1110 1000 | 335.000 | 336.0 | 0.1 | 0.2 | 9.2 | 336.5 | -0.5 |
| 25 | 1110 0111 | 350.625 | 352.0 | 0.2 | 0.2 | 16.1 | 352.3 | -0.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 637

1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=3)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 366.9 | -0.4 | 0.0 | 14.9 | 368.2 | -1.2 |
| 27 | 1110 0101 | 381.875 | 388.4 | -0.4 | -0.4 | 21.5 | 384.0 | 4.4 |
| 28 | 1110 0100 | 397.500 | 407.1 | 0.0 | -0.2 | 18.7 | 399.9 | 7.2 |
| 29 | 1110 0011 | 413.125 | 416.1 | 0.3 | 0.3 | 9.0 | 415.7 | 0.4 |
| 30 | 1110 0010 | 428.750 | 434.5 | 0.4 | 0.4 | 18.4 | 431.6 | 2.9 |
| 31 | 1110 0001 | 444.375 | 454.3 | -0.3 | -0.3 | 19.8 | 447.4 | 6.9 |
| 32 | 1110 0000 | 460.000 | 459.0 | -0.4 | -0.3 | 4.6 | 463.3 | -4.3 |
| 33 | 1101 1111 | 475.625 | 479.4 | 0.2 | -0.0 | 20.4 | 479.1 | 0.3 |
| 34 | 1101 1110 | 491.250 | 491.3 | 0.4 | 0.4 | 11.9 | 495.0 | -3.6 |
| 35 | 1101 1101 | 506.875 | 515.5 | -0.0 | 0.3 | 24.1 | 510.8 | 4.7 |
| 36 | 1101 1100 | 522.500 | 528.2 | -0.2 | -0.2 | 12.7 | 526.7 | 1.5 |
| 37 | 1101 1011 | 538.125 | 543.3 | -0.1 | -0.1 | 15.1 | 542.5 | 0.8 |
| 38 | 1101 1010 | 553.750 | 558.9 | 0.3 | 0.4 | 15.6 | 558.4 | 0.6 |
| 39 | 1101 1001 | 569.375 | 581.6 | 0.2 | 0.3 | 22.6 | 574.2 | 7.3 |
| 40 | 1101 1000 | 585.000 | 588.6 | -0.3 | 0.1 | 7.1 | 590.1 | -1.4 |
| 41 | 1101 0111 | 600.625 | 604.3 | -0.3 | -0.2 | 15.6 | 605.9 | -1.7 |
| 42 | 1101 0110 | 616.250 | 621.2 | 0.0 | -0.4 | 16.9 | 621.8 | -0.6 |
| 43 | 1101 0101 | 631.875 | 642.8 | 0.2 | 0.3 | 21.7 | 637.6 | 5.2 |
| 44 | 1101 0100 | 647.500 | 659.1 | 0.0 | 0.0 | 16.3 | 653.5 | 5.6 |
| 45 | 1101 0011 | 663.125 | 670.9 | -0.2 | -0.1 | 11.7 | 669.3 | 1.5 |
| 46 | 1101 0010 | 678.750 | 689.0 | -0.5 | -0.5 | 18.1 | 685.2 | 3.8 |
| 47 | 1101 0001 | 694.375 | 708.7 | 0.2 | -0.1 | 19.8 | 701.0 | 7.7 |
| 48 | 1101 0000 | 710.000 | 720.8 | 0.2 | 0.3 | 12.1 | 716.9 | 3.9 |
| 49 | 1100 1111 | 725.625 | 733.2 | 0.0 | 0.2 | 12.3 | 732.8 | 0.4 |
| 50 | 1100 1110 | 741.250 | 745.9 | -0.5 | -0.4 | 12.7 | 748.6 | -2.7 |
| 51 | 1100 1101 | 756.875 | 769.4 | -0.3 | -0.2 | 23.4 | 764.5 | 4.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 638
 1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



| THRESHOLD
NUMBER | A/D
OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|----------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 781.5 | 0.2 | 0.2 | 12.1 | 780.3 | 1.2 |
| 53 | 1100 1011 | 788.125 | 796.6 | 0.1 | 0.2 | 15.1 | 796.2 | 0.5 |
| 54 | 1100 1010 | 803.750 | 813.2 | -0.5 | -0.1 | 16.6 | 812.0 | 1.2 |
| 55 | 1100 1001 | 819.375 | 835.0 | -0.2 | -0.2 | 21.7 | 827.9 | 7.1 |
| 56 | 1100 1000 | 835.000 | 846.9 | 0.0 | -0.3 | 11.9 | 843.7 | 3.2 |
| 57 | 1100 0111 | 850.625 | 857.2 | 0.2 | 0.2 | 10.3 | 859.6 | -2.4 |
| 58 | 1100 0110 | 866.250 | 874.2 | 0.3 | 0.4 | 17.0 | 875.4 | -1.2 |
| 59 | 1100 0101 | 881.875 | 895.9 | -0.2 | -0.2 | 21.7 | 891.3 | 4.7 |
| 60 | 1100 0100 | 897.500 | 915.0 | -0.2 | -0.2 | 19.1 | 907.1 | 7.9 |
| 61 | 1100 0011 | 913.125 | 923.5 | 0.0 | -0.0 | 8.5 | 923.0 | 0.5 |
| 62 | 1100 0010 | 928.750 | 941.5 | 0.5 | 0.5 | 18.0 | 938.8 | 2.7 |
| 63 | 1100 0001 | 944.375 | 961.3 | 0.0 | 0.2 | 19.7 | 954.7 | 6.6 |
| 64 | 1100 0000 | 960.000 | 971.5 | -0.3 | -0.2 | 10.2 | 970.5 | 1.0 |
| 65 | 1011 1111 | 975.625 | 983.2 | -0.2 | -0.3 | 11.7 | 986.4 | -3.2 |
| 66 | 1011 1110 | 991.250 | 997.8 | 0.4 | 0.4 | 14.6 | 1002.2 | -4.4 |
| 67 | 1011 1101 | 1006.88 | 1022.7 | 0.2 | 0.2 | 24.9 | 1018.1 | 4.6 |
| 68 | 1011 1100 | 1022.50 | 1034.8 | -0.2 | -0.1 | 12.1 | 1033.9 | 0.8 |
| 69 | 1011 1011 | 1038.13 | 1049.5 | -0.1 | -0.2 | 14.7 | 1049.8 | -0.3 |
| 70 | 1011 1010 | 1053.75 | 1065.0 | 0.0 | -0.3 | 15.5 | 1065.6 | -0.6 |
| 71 | 1011 1001 | 1069.38 | 1088.7 | 0.2 | 0.2 | 23.7 | 1081.5 | 7.2 |
| 72 | 1011 1000 | 1085.00 | 1091.8 | 0.3 | 0.3 | 3.1 | 1097.4 | -5.6 |
| 73 | 1011 0111 | 1100.63 | 1109.9 | -0.1 | -0.1 | 18.1 | 1113.2 | -3.3 |
| 74 | 1011 0110 | 1116.25 | 1126.7 | -0.4 | -0.5 | 16.8 | 1129.1 | -2.3 |
| 75 | 1011 0101 | 1131.88 | 1149.6 | 0.2 | -0.1 | 22.9 | 1144.9 | 4.7 |
| 76 | 1011 0100 | 1147.50 | 1164.2 | 0.1 | 0.1 | 14.6 | 1160.8 | 3.5 |
| 77 | 1011 0011 | 1163.13 | 1176.0 | 0.1 | 0.1 | 11.8 | 1176.6 | -0.6 |
| 78 | 1011 0010 | 1178.75 | 1194.0 | -0.4 | -0.4 | 18.0 | 1192.5 | 1.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 639
 1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-4 A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1215.3 | -0.3 | -0.3 | 21.2 | 1208.3 | 7.0 |
| 80 | 1011 0000 | 1210.00 | 1221.6 | 0.3 | 0.3 | 6.3 | 1224.2 | -2.5 |
| 81 | 1010 1111 | 1225.63 | 1235.3 | 0.2 | 0.2 | 13.7 | 1240.0 | -4.7 |
| 82 | 1010 1110 | 1241.25 | 1250.9 | -0.4 | -0.0 | 15.6 | 1255.9 | -5.0 |
| 83 | 1010 1101 | 1256.88 | 1275.2 | -0.2 | -0.2 | 24.3 | 1271.7 | 3.5 |
| 84 | 1010 1100 | 1272.50 | 1285.2 | 0.1 | -0.2 | 9.9 | 1287.6 | -2.4 |
| 85 | 1010 1011 | 1288.13 | 1301.4 | 0.2 | 0.1 | 16.3 | 1303.4 | -2.0 |
| 86 | 1010 1010 | 1303.75 | 1317.4 | 0.2 | 0.2 | 15.9 | 1319.3 | -1.9 |
| 87 | 1010 1001 | 1319.38 | 1340.9 | -0.3 | -0.3 | 23.6 | 1335.1 | 5.8 |
| 88 | 1010 1000 | 1335.00 | 1349.1 | -0.5 | -0.6 | 8.1 | 1351.0 | -1.9 |
| 89 | 1010 0111 | 1350.63 | 1361.8 | 0.2 | -0.0 | 12.8 | 1366.8 | -5.0 |
| 90 | 1010 0110 | 1366.25 | 1378.7 | 0.3 | 0.3 | 16.8 | 1382.7 | -4.0 |
| 91 | 1010 0101 | 1381.88 | 1401.5 | 0.0 | 0.3 | 22.8 | 1398.5 | 2.9 |
| 92 | 1010 0100 | 1397.50 | 1419.3 | 0.1 | 0.1 | 17.9 | 1414.4 | 5.0 |
| 93 | 1010 0011 | 1413.13 | 1428.1 | -0.0 | -0.1 | 8.8 | 1430.2 | -2.1 |
| 94 | 1010 0010 | 1428.75 | 1446.0 | 0.4 | 0.4 | 17.9 | 1446.1 | -0.1 |
| 95 | 1010 0001 | 1444.38 | 1466.9 | 0.2 | 0.2 | 20.9 | 1461.9 | 4.9 |
| 96 | 1010 0000 | 1460.00 | 1473.6 | -0.2 | -0.0 | 6.7 | 1477.8 | -4.2 |
| 97 | 1001 1111 | 1475.63 | 1488.0 | -0.3 | -0.2 | 14.4 | 1493.7 | -5.7 |
| 98 | 1001 1110 | 1491.25 | 1502.8 | -0.0 | -0.4 | 14.8 | 1509.5 | -6.7 |
| 99 | 1001 1101 | 1506.88 | 1527.4 | 0.3 | 0.2 | 24.6 | 1525.4 | 2.1 |
| 100 | 1001 1100 | 1522.50 | 1534.4 | 0.2 | 0.2 | 7.0 | 1541.2 | -6.8 |
| 101 | 1001 1011 | 1538.13 | 1553.9 | -0.2 | -0.1 | 19.5 | 1557.1 | -3.1 |
| 102 | 1001 1010 | 1553.75 | 1569.2 | -0.2 | -0.1 | 15.3 | 1572.9 | -3.7 |
| 103 | 1001 1001 | 1569.38 | 1593.0 | 0.3 | 0.0 | 23.8 | 1588.8 | 4.2 |
| 104 | 1001 1000 | 1585.00 | 1598.6 | 0.2 | 0.3 | 5.6 | 1604.6 | -6.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 640
 1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=3)

HAC
TEST
527

| THRESHOLD
NUMBER | A/D
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1614.3 | 0.0 | 0.2 | 15.6 | 1670.5 | -6.2 |
| 106 | 1001 0110 | 1616.25 | 1631.2 | -0.5 | -0.4 | 17.0 | 1636.3 | -5.1 |
| 107 | 1001 0101 | 1631.88 | 1654.2 | -0.4 | -0.3 | 23.0 | 1652.2 | 2.0 |
| 108 | 1001 0100 | 1647.50 | 1669.2 | 0.1 | -0.0 | 15.0 | 1668.0 | 1.2 |
| 109 | 1001 0011 | 1663.13 | 1680.4 | 0.0 | 0.1 | 11.2 | 1683.9 | -3.5 |
| 110 | 1001 0010 | 1678.75 | 1698.2 | -0.4 | -0.1 | 17.8 | 1699.7 | -1.5 |
| 111 | 1001 0001 | 1694.38 | 1719.5 | -0.2 | -0.2 | 21.2 | 1715.6 | 3.9 |
| 112 | 1001 0000 | 1710.00 | 1734.1 | 0.1 | -0.2 | 14.6 | 1731.4 | 2.7 |
| 113 | 1000 1111 | 1725.63 | 1739.8 | 0.2 | 0.3 | 5.7 | 1747.3 | -7.5 |
| 114 | 1000 1110 | 1741.25 | 1754.7 | 0.4 | 0.3 | 15.0 | 1763.1 | -8.4 |
| 115 | 1000 1101 | 1756.88 | 1779.6 | -0.2 | -0.2 | 24.8 | 1779.0 | 0.6 |
| 116 | 1000 1100 | 1772.50 | 1790.1 | -0.2 | -0.2 | 10.5 | 1794.8 | -4.8 |
| 117 | 1000 1011 | 1788.13 | 1805.7 | 0.0 | -0.0 | 15.6 | 1810.7 | -5.0 |
| 118 | 1000 1010 | 1803.75 | 1821.5 | 0.1 | 0.1 | 15.8 | 1826.5 | -5.1 |
| 119 | 1000 1001 | 1819.38 | 1844.8 | 0.0 | 0.2 | 23.3 | 1842.4 | 2.4 |
| 120 | 1000 1000 | 1835.00 | 1855.7 | -0.2 | -0.2 | 10.9 | 1858.3 | -2.6 |
| 121 | 1000 0111 | 1850.63 | 1866.3 | -0.2 | -0.2 | 10.6 | 1874.1 | -7.9 |
| 122 | 1000 0110 | 1866.25 | 1882.9 | 0.4 | 0.3 | 16.6 | 1890.0 | -7.1 |
| 123 | 1000 0101 | 1881.88 | 1905.3 | 0.2 | 0.2 | 22.4 | 1905.8 | -0.5 |
| 124 | 1000 0100 | 1897.50 | 1924.1 | -0.1 | 0.1 | 18.7 | 1921.7 | 2.4 |
| 125 | 1000 0011 | 1913.13 | 1932.2 | -0.1 | -0.1 | 8.1 | 1937.5 | -5.3 |
| 126 | 1000 0010 | 1928.75 | 1950.4 | 0.0 | -0.5 | 18.3 | 1953.4 | -2.9 |
| 127 | 1000 0001 | 1944.38 | 1970.9 | 0.1 | 0.2 | 20.5 | 1969.2 | 1.7 |
| 128 | 1000 0000 | 1960.00 | 1987.4 | 0.2 | 0.2 | 16.5 | 1985.1 | 2.4 |
| 129 | 0111 1111 | 1975.63 | 1997.3 | -0.2 | -0.2 | 9.8 | 2000.9 | -3.6 |
| 130 | 0111 1110 | 1991.25 | 2013.4 | -0.4 | -0.5 | 16.1 | 2016.8 | -3.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 641
 1901/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



NOV 30 '01

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2037.9 | 0.2 | -0.0 | 24.4 | 2032.6 | 5.2 |
| 132 | 0111 1100 | 2022.50 | 2044.3 | 0.2 | 0.2 | 6.5 | 2048.5 | -4.1 |
| 133 | 0111 1011 | 2038.13 | 2063.6 | 0.0 | 0.0 | 19.2 | 2064.3 | -0.7 |
| 134 | 0111 1010 | 2053.75 | 2082.7 | -0.4 | -0.4 | 19.1 | 2080.2 | 2.5 |
| 135 | 0111 1001 | 2069.38 | 2104.6 | -0.2 | -0.2 | 21.9 | 2096.0 | 8.6 |
| 136 | 0111 1000 | 2085.00 | 2106.3 | 0.3 | 0.4 | 1.7 | 2111.9 | -5.6 |
| 137 | 0111 0111 | 2100.63 | 2123.9 | 0.1 | 0.2 | 17.6 | 2127.7 | -3.9 |
| 138 | 0111 0110 | 2116.25 | 2141.7 | -0.3 | -0.1 | 17.8 | 2143.6 | -1.9 |
| 139 | 0111 0101 | 2131.68 | 2165.2 | -0.2 | -0.2 | 23.6 | 2159.4 | 5.8 |
| 140 | 0111 0100 | 2147.50 | 2180.6 | 0.0 | -0.1 | 15.3 | 2175.3 | 5.3 |
| 141 | 0111 0011 | 2163.13 | 2190.2 | 0.1 | 0.2 | 9.6 | 2191.1 | -0.9 |
| 142 | 0111 0010 | 2178.75 | 2209.3 | -0.1 | -0.1 | 19.1 | 2207.0 | 2.3 |
| 143 | 0111 0001 | 2194.38 | 2231.1 | -0.2 | -0.2 | 21.8 | 2222.8 | 8.2 |
| 144 | 0111 0000 | 2210.00 | 2252.9 | -0.2 | -0.2 | 1.9 | 2238.7 | -5.8 |
| 145 | 0110 1111 | 2225.63 | 2249.5 | 0.2 | 0.9 | 16.5 | 2254.6 | -5.1 |
| 146 | 0110 1110 | 2241.25 | 2265.6 | 0.4 | 0.4 | 16.2 | 2270.4 | -4.8 |
| 147 | 0110 1101 | 2256.88 | 2290.2 | 0.0 | 0.2 | 24.6 | 2286.3 | 4.0 |
| 148 | 0110 1100 | 2272.50 | 2300.1 | -0.2 | -0.2 | 9.9 | 2302.1 | -2.0 |
| 149 | 0110 1011 | 2288.13 | 2315.8 | -0.0 | -0.1 | 15.7 | 2318.0 | -2.2 |
| 150 | 0110 1010 | 2303.75 | 2332.5 | 0.0 | -0.1 | 16.7 | 2333.8 | -1.3 |
| 151 | 0110 1001 | 2319.38 | 2356.5 | 0.2 | 0.2 | 24.0 | 2349.7 | 6.8 |
| 152 | 0110 1000 | 2335.00 | 2362.9 | -0.2 | -0.0 | 6.4 | 2365.5 | -2.6 |
| 153 | 0110 0111 | 2350.63 | 2376.2 | -0.2 | -0.2 | 13.3 | 2381.4 | -5.1 |
| 154 | 0110 0110 | 2366.25 | 2394.1 | 0.0 | -0.3 | 17.9 | 2397.2 | -3.1 |
| 155 | 0110 0101 | 2381.88 | 2417.2 | 0.1 | 0.1 | 23.1 | 2413.1 | 4.2 |
| 156 | 0110 0100 | 2397.50 | 2435.3 | -0.0 | -0.0 | 18.3 | 2428.9 | 6.7 |
| 157 | 0110 0011 | 2413.13 | 2442.5 | -0.2 | -0.0 | 7.0 | 2444.8 | -2.2 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 642

1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2462.1 | -0.1 | -0.2 | 19.6 | 2460.6 | 1.5 |
| 159 | 0110 0001 | 2444.38 | 2482.8 | 0.2 | 0.0 | 20.7 | 2476.5 | 6.3 |
| 160 | 0110 0000 | 2460.00 | 2488.8 | 0.4 | 0.4 | 6.0 | 2492.3 | -3.6 |
| 161 | 0101 1111 | 2475.63 | 2502.1 | -0.0 | 0.2 | 13.3 | 2508.2 | -6.1 |
| 162 | 0101 1110 | 2491.25 | 2518.1 | -0.3 | -0.3 | 16.0 | 2524.0 | -5.9 |
| 163 | 0101 1101 | 2506.88 | 2543.2 | -0.2 | -0.2 | 25.1 | 2539.9 | 3.3 |
| 164 | 0101 1100 | 2522.50 | 2549.5 | 0.2 | 0.0 | 6.3 | 2555.7 | -6.2 |
| 165 | 0101 1011 | 2538.13 | 2568.2 | 0.1 | 0.2 | 18.7 | 2571.6 | -3.3 |
| 166 | 0101 1010 | 2553.75 | 2587.5 | -0.4 | -0.0 | 19.3 | 2587.4 | 0.1 |
| 167 | 0101 1001 | 2569.38 | 2609.4 | -0.1 | -0.1 | 21.9 | 2603.3 | 6.1 |
| 168 | 0101 1000 | 2585.00 | 2613.4 | 0.0 | -0.1 | 4.0 | 2619.1 | -5.8 |
| 169 | 0101 0111 | 2600.63 | 2628.7 | 0.1 | 0.1 | 15.3 | 2635.0 | -6.3 |
| 170 | 0101 0110 | 2616.25 | 2646.3 | 0.3 | 0.4 | 17.6 | 2650.9 | -4.6 |
| 171 | 0101 0101 | 2631.88 | 2670.2 | -0.3 | -0.2 | 23.9 | 2666.7 | 3.5 |
| 172 | 0101 0100 | 2647.50 | 2685.9 | -0.2 | -0.2 | 15.7 | 2682.6 | 3.4 |
| 173 | 0101 0011 | 2663.13 | 2695.2 | -0.0 | -0.0 | 9.3 | 2698.4 | -3.2 |
| 174 | 0101 0010 | 2678.75 | 2713.2 | 0.2 | 0.1 | 18.0 | 2714.3 | -1.0 |
| 175 | 0101 0001 | 2694.38 | 2735.8 | -0.0 | 0.2 | 22.5 | 2730.1 | 5.7 |
| 176 | 0101 0000 | 2710.00 | 2747.8 | -0.2 | -0.3 | 12.0 | 2746.0 | 1.9 |
| 177 | 0100 1111 | 2725.63 | 2754.6 | -0.2 | -0.2 | 6.8 | 2761.8 | -7.2 |
| 178 | 0100 1110 | 2741.25 | 2770.5 | 0.3 | -0.1 | 15.9 | 2777.7 | -7.2 |
| 179 | 0100 1101 | 2756.88 | 2795.4 | 0.2 | 0.2 | 24.9 | 2793.5 | 1.9 |
| 180 | 0100 1100 | 2772.50 | 2805.6 | -0.2 | -0.1 | 10.2 | 2809.4 | -3.8 |
| 181 | 0100 1011 | 2788.13 | 2820.6 | -0.1 | -0.0 | 15.0 | 2825.7 | -4.6 |
| 182 | 0100 1010 | 2803.75 | 2840.8 | -0.1 | -0.1 | 20.2 | 2841.1 | -0.3 |
| 183 | 0100 1001 | 2819.38 | 2861.4 | 0.2 | 0.2 | 20.6 | 2856.9 | 4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 643

1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



REV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2870.5 | 0.5 | 0.7 | 9.0 | 2872.8 | -2.3 |
| 185 | 0100 0111 | 2850.63 | 2881.1 | -0.1 | 0.0 | 10.7 | 2888.6 | -7.5 |
| 186 | 0100 0110 | 2866.25 | 2899.1 | -0.4 | -0.4 | 17.9 | 2904.5 | -5.4 |
| 187 | 0100 0101 | 2881.88 | 2922.4 | 0.1 | 0.0 | 23.3 | 2920.3 | 2.0 |
| 188 | 0100 0100 | 2897.50 | 2941.5 | 0.0 | 0.1 | 19.2 | 2936.2 | 5.3 |
| 189 | 0100 0011 | 2913.13 | 2947.5 | 0.0 | 0.1 | 6.0 | 2952.0 | -4.5 |
| 190 | 0100 0010 | 2928.75 | 2966.5 | -0.1 | -0.1 | 19.0 | 2967.9 | -1.4 |
| 191 | 0100 0001 | 2944.38 | 2988.2 | -0.1 | -0.1 | 21.7 | 2983.7 | 4.5 |
| 192 | 0100 0000 | 2960.00 | 3001.4 | 0.3 | 0.0 | 13.2 | 2999.6 | 1.8 |
| 193 | 0011 1111 | 2975.63 | 3007.4 | 0.2 | 0.2 | 6.0 | 3015.5 | -8.0 |
| 194 | 0011 1110 | 2991.25 | 3023.1 | -0.2 | 0.0 | 15.7 | 3031.3 | -8.2 |
| 195 | 0011 1101 | 3006.88 | 3048.9 | -0.1 | -0.1 | 25.8 | 3047.2 | 1.7 |
| 196 | 0011 1100 | 3022.50 | 3054.3 | 0.0 | -0.2 | 5.4 | 3063.0 | -8.7 |
| 197 | 0011 1011 | 3038.13 | 3074.0 | 0.0 | 0.0 | 19.7 | 3078.9 | -4.9 |
| 198 | 0011 1010 | 3053.75 | 3092.5 | 0.4 | 0.4 | 18.5 | 3094.7 | -2.2 |
| 199 | 0011 1001 | 3069.38 | 3115.9 | -0.3 | -0.0 | 23.4 | 3110.6 | 5.3 |
| 200 | 0011 1000 | 3085.00 | 3119.1 | 0.1 | 0.2 | 3.2 | 3126.4 | -7.3 |
| 201 | 0011 0111 | 3100.63 | 3134.7 | 0.1 | -0.0 | 15.7 | 3142.3 | -7.5 |
| 202 | 0011 0110 | 3116.25 | 3152.0 | 0.6 | 0.4 | 17.2 | 3158.1 | -6.1 |
| 203 | 0011 0101 | 3131.88 | 3176.5 | -0.0 | 0.2 | 24.5 | 3174.0 | 2.6 |
| 204 | 0011 0100 | 3147.50 | 3191.7 | -0.3 | -0.2 | 15.1 | 3189.8 | 1.9 |
| 205 | 0011 0011 | 3163.13 | 3201.7 | -0.0 | -0.1 | 10.0 | 3205.7 | -4.0 |
| 206 | 0011 0010 | 3178.75 | 3219.4 | 0.0 | -0.1 | 17.7 | 3221.5 | -2.2 |
| 207 | 0011 0001 | 3194.38 | 3243.1 | 0.0 | 0.2 | 23.8 | 3237.4 | 5.7 |
| 208 | 0011 0000 | 3210.00 | 3253.6 | -0.0 | 0.0 | 10.4 | 3253.2 | 0.3 |
| 209 | 0010 1111 | 3225.63 | 3261.5 | -0.2 | -0.2 | 7.9 | 3269.1 | -7.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 644

1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3277.5 | -0.0 | -0.2 | 16.0 | 3284.9 | -7.4 |
| 211 | 0010 1101 | 3256.88 | 3303.0 | 0.1 | 0.1 | 25.4 | 3300.8 | 2.2 |
| 212 | 0010 1100 | 3272.50 | 3311.4 | 0.2 | 0.2 | 8.4 | 3316.6 | -5.2 |
| 213 | 0010 1011 | 3288.13 | 3328.1 | -0.1 | -0.0 | 16.7 | 3332.5 | -4.3 |
| 214 | 0010 1010 | 3303.75 | 3348.3 | -0.3 | -0.2 | 20.2 | 3348.3 | -0.0 |
| 215 | 0010 1001 | 3319.38 | 3369.9 | 0.1 | -0.1 | 21.5 | 3364.2 | 5.7 |
| 216 | 0010 1000 | 3335.00 | 3375.7 | 0.4 | 0.4 | 5.8 | 3380.0 | -4.4 |
| 217 | 0010 0111 | 3350.63 | 3389.1 | -0.1 | 0.2 | 13.4 | 3395.9 | -6.8 |
| 218 | 0010 0110 | 3366.25 | 3407.2 | -0.5 | -0.3 | 18.1 | 3411.8 | -4.6 |
| 219 | 0010 0101 | 3381.88 | 3431.4 | -0.2 | -0.2 | 24.2 | 3427.6 | 3.8 |
| 220 | 0010 0100 | 3397.50 | 3449.4 | 0.1 | -0.1 | 18.0 | 3443.5 | 5.9 |
| 221 | 0010 0011 | 3413.13 | 3462.9 | -0.1 | 0.0 | 13.5 | 3459.3 | 3.6 |
| 222 | 0010 0010 | 3428.75 | 3474.6 | 0.0 | 0.0 | 11.7 | 3475.2 | -0.5 |
| 223 | 0010 0001 | 3444.38 | 3497.9 | -0.2 | -0.1 | 23.2 | 3491.0 | 6.8 |
| 224 | 0010 0000 | 3460.00 | 3502.7 | 0.0 | 0.0 | 4.8 | 3506.9 | -4.2 |
| 225 | 0001 1111 | 3475.63 | 3516.7 | -0.0 | -0.0 | 14.0 | 3522.7 | -6.0 |
| 226 | 0001 1110 | 3491.25 | 3532.2 | 0.0 | 0.0 | 15.5 | 3538.6 | -6.3 |
| 227 | 0001 1101 | 3506.88 | 3558.8 | -0.3 | -0.0 | 26.6 | 3554.4 | 4.4 |
| 228 | 0001 1100 | 3522.50 | 3571.4 | -7.2 | -0.2 | 12.6 | 3570.3 | 1.1 |
| 229 | 0001 1011 | 3538.13 | 3583.7 | 0.0 | 0.1 | 12.3 | 3586.1 | -2.4 |
| 230 | 0001 1010 | 3553.75 | 3600.0 | 0.1 | 0.1 | 16.3 | 3602.0 | -1.9 |
| 231 | 0001 1001 | 3569.38 | 3625.8 | -0.1 | 0.2 | 25.7 | 3617.8 | 7.9 |
| 232 | 0001 1000 | 3585.00 | 3629.5 | -0.1 | -0.1 | 3.7 | 3633.7 | -4.2 |
| 233 | 0001 0111 | 3600.63 | 3645.3 | -0.2 | -0.2 | 15.8 | 3649.5 | -4.2 |
| 234 | 0001 0110 | 3616.25 | 3662.8 | 0.3 | 0.0 | 17.5 | 3665.4 | -2.6 |
| 235 | 0001 0101 | 3631.88 | 3687.6 | 0.0 | 0.3 | 24.7 | 3681.2 | 6.3 |
| 236 | 0001 0100 | 3647.50 | 3703.1 | -0.2 | -0.0 | 15.6 | 3697.1 | 6.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 645
 1981/11/30 15:45:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=3)



11/20/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | TDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PRFV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3712.6 | -0.2 | -0.1 | 9.5 | 3712.9 | -0.3 |
| 238 | 0001 0010 | 3678.75 | 3729.9 | -0.2 | -0.1 | 17.3 | 3728.8 | 1.1 |
| 239 | 0001 0001 | 3694.38 | 3754.2 | -0.0 | 0.2 | 24.3 | 3744.6 | 9.6 |
| 240 | 0001 0000 | 3710.00 | 3769.0 | 0.2 | 0.2 | 14.8 | 3760.5 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3773.3 | -0.3 | -0.1 | 4.2 | 3776.4 | -3.1 |
| 242 | 0000 1110 | 3741.25 | 3789.0 | -0.3 | -0.3 | 15.8 | 3792.2 | -3.2 |
| 243 | 0000 1101 | 3756.88 | 3815.2 | 0.0 | 0.0 | 26.1 | 3808.1 | 7.1 |
| 244 | 0000 1100 | 3772.50 | 3829.4 | -0.1 | -0.1 | 14.2 | 3823.9 | 5.5 |
| 245 | 0000 1011 | 3788.13 | 3840.2 | -0.1 | 0.1 | 10.7 | 3839.8 | 0.4 |
| 246 | 0000 1010 | 3803.75 | 3860.6 | -0.3 | -0.2 | 20.4 | 3855.6 | 5.0 |
| 247 | 0000 1001 | 3819.38 | 3882.3 | -0.3 | -0.2 | 21.7 | 3871.5 | 10.8 |
| 248 | 0000 1000 | 3835.00 | 3892.9 | 0.3 | 0.1 | 10.5 | 3887.3 | 5.5 |
| 249 | 0000 0111 | 3850.63 | 3901.9 | 0.1 | 0.1 | 9.0 | 3903.2 | -1.3 |
| 250 | 0000 0110 | 3866.25 | 3920.0 | -0.5 | -0.1 | 18.2 | 3919.0 | 1.0 |
| 251 | 0000 0101 | 3881.88 | 3944.7 | -0.3 | -0.3 | 24.6 | 3934.9 | 9.8 |
| 252 | 0000 0100 | 3897.50 | 3963.4 | -0.2 | -0.2 | 18.7 | 3950.7 | 12.7 |
| 253 | 0000 0011 | 3913.13 | 3973.3 | -3.8 | 3.1 | 9.9 | 3966.6 | 6.7 |
| 254 | 0000 0010 | 3928.75 | 3987.6 | 0.0 | 0.1 | 14.3 | 3982.4 | 5.2 |
| 255 | 0000 0001 | 3944.38 | 4011.3 | -0.4 | -0.0 | 23.7 | 3998.3 | 13.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 646

1981/11/30 15:51:37 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)
S U M M A R Y



11/30/81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 = THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.847X - 43.0MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.421%

OFFSET IS: -43.0MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998560$

ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.720MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.9MV | 243 | 15.904MV | 1.5MV | 241 | 5.956MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.7MV | 74 | -0.045MV | -0.9MV | 234 | .541MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 2.1MV | 150 | 0.002MV | -0.8MV | 128 | .564MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 647

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)



17/30 81

| THRESHOLD | A/D OUTPUT | IDEAL VALUE | ANALOG INPUT VOLTAGE (MV) | | | INCREASE FROM PREV THRESHOLD | BEST FIT STRAIGHT LINE | |
|-----------|------------|-------------|---------------------------|-------|-------|------------------------------|------------------------|-----------|
| NUMBER | THRESHOLD | (MV) | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -30.3 | -0.9 | -0.5 | | -27.2 | -3.1 |
| 2 | 1111 1110 | -8.750 | -18.6 | -0.1 | -0.6 | 11.7 | -11.3 | -7.3 |
| 3 | 1111 1101 | 6.875 | 5.2 | 0.5 | 0.5 | 23.8 | 4.5 | 0.7 |
| 4 | 1111 1100 | 22.500 | 17.7 | 0.5 | 0.6 | 12.5 | 20.4 | -2.7 |
| 5 | 1111 1011 | 38.125 | 36.2 | -0.5 | 0.0 | 18.5 | 36.2 | -0.0 |
| 6 | 1111 1010 | 53.750 | 49.7 | -0.7 | -0.7 | 13.5 | 52.1 | -2.4 |
| 7 | 1111 1001 | 69.375 | 72.2 | -0.1 | -0.6 | 22.5 | 67.9 | 4.3 |
| 8 | 1111 1000 | 85.000 | 77.0 | 0.6 | 0.6 | 4.8 | 83.8 | -6.8 |
| 9 | 1111 0111 | 100.625 | 97.4 | -0.1 | 0.6 | 20.4 | 99.6 | -2.2 |
| 10 | 1111 0110 | 116.250 | 111.5 | -0.7 | -0.6 | 14.1 | 115.5 | -4.0 |
| 11 | 1111 0101 | 131.875 | 133.9 | -0.6 | -0.6 | 22.4 | 131.3 | 2.6 |
| 12 | 1111 0100 | 147.500 | 149.1 | 0.6 | -0.0 | 15.2 | 147.2 | 1.9 |
| 13 | 1111 0011 | 163.125 | 161.1 | 0.6 | 0.6 | 12.0 | 163.0 | -1.9 |
| 14 | 1111 0010 | 178.750 | 179.2 | -0.1 | 0.6 | 18.1 | 178.8 | 0.3 |
| 15 | 1111 0001 | 194.375 | 200.1 | -0.6 | -0.6 | 20.9 | 194.7 | 5.4 |
| 16 | 1111 0000 | 210.000 | 209.9 | -0.1 | -0.7 | 9.8 | 210.5 | -0.6 |
| 17 | 1110 1111 | 225.625 | 224.4 | 0.5 | 0.6 | 14.5 | 226.4 | -2.0 |
| 18 | 1110 1110 | 241.250 | 236.3 | 0.5 | 0.6 | 11.9 | 242.2 | -5.9 |
| 19 | 1110 1101 | 256.875 | 261.0 | -0.6 | -0.0 | 24.7 | 258.1 | 2.9 |
| 20 | 1110 1100 | 272.500 | 276.3 | -0.6 | -0.6 | 15.3 | 273.9 | 2.4 |
| 21 | 1110 1011 | 288.125 | 291.3 | 0.0 | -0.5 | 15.0 | 289.8 | 1.6 |
| 22 | 1110 1010 | 303.750 | 304.6 | 0.5 | 0.6 | 13.3 | 305.6 | -1.0 |
| 23 | 1110 1001 | 319.375 | 326.8 | -0.1 | 0.5 | 22.1 | 321.5 | 5.3 |
| 24 | 1110 1000 | 335.000 | 337.0 | -0.7 | -0.6 | 10.2 | 337.3 | -0.3 |
| 25 | 1110 0111 | 350.625 | 353.1 | -0.6 | -0.6 | 16.0 | 353.2 | -0.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 648

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 366.2 | 0.6 | 0.0 | 13.1 | 369.0 | -2.8 |
| 27 | 1110 0101 | 381.875 | 388.4 | 0.5 | 0.6 | 22.2 | 384.9 | 3.5 |
| 28 | 1110 0100 | 397.500 | 407.2 | -0.1 | 0.6 | 18.8 | 400.7 | 6.5 |
| 29 | 1110 0011 | 413.125 | 416.6 | -0.5 | -0.6 | 9.3 | 416.6 | 0.0 |
| 30 | 1110 0010 | 428.750 | 435.1 | -0.1 | -0.6 | 18.5 | 432.4 | 2.7 |
| 31 | 1110 0001 | 444.375 | 454.6 | 0.5 | 0.5 | 19.5 | 448.2 | 6.3 |
| 32 | 1110 0000 | 460.000 | 459.7 | 0.7 | 0.7 | 5.1 | 464.1 | -4.4 |
| 33 | 1101 1111 | 475.625 | 480.6 | -0.6 | -0.0 | 20.9 | 479.9 | 0.6 |
| 34 | 1101 1110 | 491.250 | 491.7 | -0.7 | -0.6 | 11.2 | 495.8 | -4.0 |
| 35 | 1101 1101 | 506.875 | 516.4 | -0.0 | -0.5 | 24.6 | 511.6 | 4.8 |
| 36 | 1101 1100 | 522.500 | 528.5 | 0.6 | 0.6 | 12.1 | 527.5 | 1.0 |
| 37 | 1101 1011 | 538.125 | 543.0 | -0.1 | 0.6 | 14.5 | 543.3 | -0.3 |
| 38 | 1101 1010 | 553.750 | 559.9 | -0.7 | -0.6 | 16.8 | 559.2 | 0.7 |
| 39 | 1101 1001 | 569.375 | 582.7 | -0.6 | -0.5 | 22.8 | 575.0 | 7.7 |
| 40 | 1101 1000 | 585.000 | 589.5 | 0.7 | 0.0 | 6.8 | 590.9 | -1.4 |
| 41 | 1101 0111 | 600.625 | 607.8 | 0.5 | 0.5 | 18.3 | 606.7 | 1.0 |
| 42 | 1101 0110 | 616.250 | 620.7 | -0.1 | 0.5 | 13.0 | 622.6 | -1.8 |
| 43 | 1101 0101 | 631.875 | 644.0 | -0.6 | -0.6 | 23.3 | 638.4 | 5.6 |
| 44 | 1101 0100 | 647.500 | 660.1 | -0.0 | -0.6 | 16.1 | 654.3 | 5.9 |
| 45 | 1101 0011 | 663.125 | 670.6 | 0.5 | 0.6 | 10.5 | 670.1 | 0.5 |
| 46 | 1101 0010 | 678.750 | 688.6 | 0.6 | 0.6 | 18.0 | 686.0 | 2.7 |
| 47 | 1101 0001 | 694.375 | 710.0 | -0.6 | -0.0 | 21.4 | 701.8 | 8.2 |
| 48 | 1101 0000 | 710.000 | 722.7 | -0.7 | -0.7 | 12.9 | 717.6 | 5.3 |
| 49 | 1100 1111 | 725.625 | 734.6 | -0.0 | -0.6 | 11.7 | 733.5 | 1.1 |
| 50 | 1100 1110 | 741.250 | 745.4 | 0.5 | 0.6 | 10.8 | 749.3 | -3.9 |
| 51 | 1100 1101 | 756.875 | 769.7 | -0.0 | 0.5 | 24.3 | 765.2 | 4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 649

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)



NO 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 786.0 | -0.6 | -0.6 | 16.2 | 781.0 | 4.9 |
| 53 | 1100 1011 | 788.125 | 797.3 | -0.6 | -0.6 | 11.3 | 796.9 | 0.4 |
| 54 | 1100 1010 | 803.750 | 813.3 | 0.5 | -0.1 | 16.0 | 812.7 | 0.5 |
| 55 | 1100 1001 | 819.375 | 835.6 | 0.5 | 0.6 | 22.3 | 828.6 | 7.0 |
| 56 | 1100 1000 | 835.000 | 847.8 | -0.0 | 0.6 | 12.1 | 844.4 | 3.3 |
| 57 | 1100 0111 | 850.625 | 861.7 | -0.6 | -0.6 | 13.9 | 860.3 | 1.4 |
| 58 | 1100 0110 | 866.250 | 874.9 | -0.0 | -0.6 | 13.2 | 876.1 | -1.2 |
| 59 | 1100 0101 | 881.875 | 896.5 | 0.5 | 0.6 | 21.6 | 892.0 | 4.6 |
| 60 | 1100 0100 | 897.500 | 915.7 | 0.5 | 0.6 | 19.1 | 907.8 | 7.9 |
| 61 | 1100 0011 | 913.125 | 924.2 | -0.6 | 0.0 | 8.5 | 923.7 | 0.5 |
| 62 | 1100 0010 | 928.750 | 942.5 | -0.6 | -0.6 | 18.3 | 939.5 | 3.0 |
| 63 | 1100 0001 | 944.375 | 962.8 | 0.0 | -0.6 | 20.3 | 955.4 | 7.4 |
| 64 | 1100 0000 | 960.000 | 972.8 | 0.7 | 0.7 | 10.0 | 971.2 | 1.6 |
| 65 | 1011 1111 | 975.625 | 987.8 | 0.0 | 0.5 | 15.1 | 987.0 | 0.8 |
| 66 | 1011 1110 | 991.250 | 998.6 | -0.6 | -0.8 | 10.7 | 1002.9 | -4.3 |
| 67 | 1011 1101 | 1006.88 | 1023.7 | -0.6 | -0.6 | 25.1 | 1018.7 | 5.0 |
| 68 | 1011 1100 | 1022.50 | 1035.3 | 0.6 | -0.0 | 11.5 | 1034.6 | 0.7 |
| 69 | 1011 1011 | 1038.13 | 1049.7 | 0.6 | 0.5 | 14.4 | 1050.4 | -0.8 |
| 70 | 1011 1010 | 1053.75 | 1065.4 | 0.0 | 0.6 | 15.8 | 1066.3 | -0.8 |
| 71 | 1011 1001 | 1069.38 | 1090.1 | -0.6 | -0.6 | 24.6 | 1082.1 | 8.0 |
| 72 | 1011 1000 | 1085.00 | 1093.9 | -0.0 | -0.6 | 3.8 | 1098.0 | -4.1 |
| 73 | 1011 0111 | 1100.63 | 1110.1 | 0.5 | 0.6 | 16.2 | 1113.8 | -3.7 |
| 74 | 1011 0110 | 1116.25 | 1126.4 | 0.7 | 0.7 | 16.3 | 1129.7 | -3.3 |
| 75 | 1011 0101 | 1131.88 | 1150.8 | -0.6 | -0.0 | 24.4 | 1145.5 | 5.3 |
| 76 | 1011 0100 | 1147.50 | 1165.5 | -0.6 | -0.6 | 14.7 | 1161.4 | 4.1 |
| 77 | 1011 0011 | 1163.13 | 1177.0 | -0.0 | -0.6 | 11.5 | 1177.2 | -0.2 |
| 78 | 1011 0010 | 1178.75 | 1194.0 | 0.6 | 0.6 | 17.0 | 1193.1 | 0.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 650

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PRFU
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1215.8 | -0.0 | 0.5 | 21.8 | 1208.9 | 6.9 |
| 80 | 1011 0000 | 1210.00 | 1223.4 | -0.6 | -0.7 | 7.5 | 1224.8 | -1.4 |
| 81 | 1010 1111 | 1225.63 | 1236.3 | -0.6 | -0.6 | 12.9 | 1240.6 | -4.3 |
| 82 | 1010 1110 | 1241.25 | 1250.4 | 0.7 | 0.0 | 14.1 | 1256.4 | -6.0 |
| 83 | 1010 1101 | 1256.88 | 1275.5 | 0.6 | 0.6 | 25.0 | 1272.3 | 3.2 |
| 84 | 1010 1100 | 1272.50 | 1285.3 | 0.0 | 0.6 | 9.9 | 1288.1 | -2.8 |
| 85 | 1010 1011 | 1288.13 | 1302.2 | -0.5 | -0.6 | 16.9 | 1304.0 | -1.8 |
| 86 | 1010 1010 | 1303.75 | 1318.5 | 0.0 | -0.6 | 16.2 | 1319.8 | -1.4 |
| 87 | 1010 1001 | 1319.38 | 1341.4 | 0.6 | 0.5 | 22.9 | 1335.7 | 5.7 |
| 88 | 1010 1000 | 1335.00 | 1350.7 | 0.6 | 0.6 | 9.2 | 1351.5 | -0.8 |
| 89 | 1010 0111 | 1350.63 | 1362.7 | -0.6 | 0.0 | 12.0 | 1367.4 | -4.7 |
| 90 | 1010 0110 | 1366.25 | 1379.4 | -0.6 | -0.6 | 16.7 | 1383.2 | -3.9 |
| 91 | 1010 0101 | 1381.88 | 1402.7 | 0.0 | -0.6 | 23.4 | 1399.1 | 3.7 |
| 92 | 1010 0100 | 1397.50 | 1420.0 | 0.6 | 0.6 | 17.3 | 1414.9 | 5.1 |
| 93 | 1010 0011 | 1413.13 | 1428.3 | -0.0 | 0.5 | 8.3 | 1430.8 | -2.5 |
| 94 | 1010 0010 | 1428.75 | 1446.8 | -0.6 | -0.6 | 18.5 | 1446.6 | 0.2 |
| 95 | 1010 0001 | 1444.38 | 1468.2 | -0.5 | -0.6 | 21.4 | 1462.5 | 5.7 |
| 96 | 1010 0000 | 1460.00 | 1474.7 | 0.7 | -0.0 | 6.5 | 1478.3 | -3.6 |
| 97 | 1001 1111 | 1475.63 | 1488.1 | 0.5 | 0.6 | 13.3 | 1494.2 | -6.1 |
| 98 | 1001 1110 | 1491.25 | 1502.3 | 0.1 | 0.7 | 14.2 | 1510.0 | -7.7 |
| 99 | 1001 1101 | 1506.88 | 1528.7 | -0.6 | -0.6 | 26.4 | 1525.8 | 2.8 |
| 100 | 1001 1100 | 1522.50 | 1535.6 | -0.6 | -0.6 | 6.9 | 1541.7 | -6.1 |
| 101 | 1001 1011 | 1538.13 | 1554.0 | 0.5 | 0.6 | 18.4 | 1557.5 | -3.5 |
| 102 | 1001 1010 | 1553.75 | 1569.7 | 0.6 | 0.5 | 15.7 | 1573.4 | -3.7 |
| 103 | 1001 1001 | 1569.38 | 1594.5 | -0.6 | 0.0 | 24.8 | 1589.2 | 5.2 |
| 104 | 1001 1000 | 1585.00 | 1600.6 | -0.7 | -0.7 | 6.1 | 1605.1 | -4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 651

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=4) 11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1615.0 | 0.0 | -0.5 | 14.4 | 1620.9 | -5.9 |
| 106 | 1001 0110 | 1616.25 | 1630.8 | 0.5 | 0.5 | 15.7 | 1636.0 | -6.0 |
| 107 | 1001 0101 | 1631.88 | 1654.6 | 0.6 | 0.6 | 23.8 | 1657.6 | 2.0 |
| 108 | 1001 0100 | 1647.50 | 1670.3 | -0.7 | -0.7 | 15.7 | 1668.5 | 1.8 |
| 109 | 1001 0011 | 1663.13 | 1681.1 | -0.6 | -0.5 | 10.8 | 1684.3 | -3.2 |
| 110 | 1001 0010 | 1678.75 | 1698.2 | 0.6 | -0.1 | 17.0 | 1700.2 | -2.0 |
| 111 | 1001 0001 | 1694.38 | 1720.2 | 0.5 | 0.6 | 22.0 | 1716.0 | 4.2 |
| 112 | 1001 0000 | 1710.00 | 1735.6 | -0.0 | 0.5 | 15.4 | 1731.9 | 3.8 |
| 113 | 1000 1111 | 1725.63 | 1740.6 | -0.6 | -0.6 | 5.0 | 1747.7 | -7.1 |
| 114 | 1000 1110 | 1741.25 | 1755.2 | -0.6 | -0.6 | 14.6 | 1763.6 | -8.4 |
| 115 | 1000 1101 | 1756.88 | 1780.0 | 0.5 | 0.5 | 24.8 | 1779.4 | 0.6 |
| 116 | 1000 1100 | 1772.50 | 1790.1 | 0.4 | 0.3 | 10.0 | 1795.2 | -5.2 |
| 117 | 1000 1011 | 1788.13 | 1806.4 | -0.7 | 0.0 | 16.3 | 1811.1 | -4.7 |
| 118 | 1000 1010 | 1803.75 | 1822.5 | -0.6 | -0.6 | 16.1 | 1826.9 | -4.5 |
| 119 | 1000 1001 | 1819.38 | 1846.2 | -0.0 | -0.6 | 23.7 | 1842.8 | 3.4 |
| 120 | 1000 1000 | 1835.00 | 1856.6 | 0.6 | 0.6 | 10.4 | 1858.6 | -2.1 |
| 121 | 1000 0111 | 1850.63 | 1866.2 | 0.6 | 0.6 | 9.6 | 1874.5 | -8.3 |
| 122 | 1000 0110 | 1866.25 | 1883.3 | -0.6 | -0.6 | 17.1 | 1890.3 | -7.0 |
| 123 | 1000 0101 | 1881.88 | 1906.8 | -0.6 | -0.6 | 23.5 | 1906.2 | 0.7 |
| 124 | 1000 0100 | 1897.50 | 1924.7 | 0.5 | -0.0 | 17.9 | 1922.0 | 2.7 |
| 125 | 1000 0011 | 1913.13 | 1932.2 | 0.5 | 0.6 | 7.5 | 1937.9 | -5.7 |
| 126 | 1000 0010 | 1928.75 | 1950.2 | -0.1 | 0.6 | 18.0 | 1953.7 | -3.6 |
| 127 | 1000 0001 | 1944.38 | 1972.4 | -0.6 | -0.6 | 22.2 | 1969.6 | 2.8 |
| 128 | 1000 0000 | 1960.00 | 1989.6 | -0.8 | -0.8 | 17.2 | 1985.4 | 4.2 |
| 129 | 0111 1111 | 1975.63 | 1997.1 | 0.6 | 0.6 | 7.5 | 2001.3 | -4.1 |
| 130 | 0111 1110 | 1991.25 | 2012.8 | 0.6 | 0.4 | 15.7 | 2017.1 | -4.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 .PAGE 652

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5-3.7-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)

11AC
T1 ST
S27

EX 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2038.7 | -0.5 | 0.0 | 25.9 | 2033.0 | 5.8 |
| 132 | 0111 1100 | 2022.50 | 2045.3 | -0.6 | -0.6 | 6.6 | 2048.8 | -3.5 |
| 133 | 0111 1011 | 2038.13 | 2064.3 | -0.1 | -0.6 | 19.0 | 2064.6 | -0.3 |
| 134 | 0111 1010 | 2053.75 | 2080.4 | 0.5 | 0.6 | 16.1 | 2080.5 | -0.1 |
| 135 | 0111 1001 | 2069.38 | 2104.9 | 0.5 | 0.6 | 24.5 | 2096.3 | 8.6 |
| 136 | 0111 1000 | 2085.00 | 2109.9 | -0.6 | -0.6 | 5.0 | 2112.2 | -2.3 |
| 137 | 0111 0111 | 2100.63 | 2124.5 | -0.6 | -0.6 | 14.6 | 2128.0 | -3.6 |
| 138 | 0111 0110 | 2116.25 | 2141.2 | 0.6 | 0.1 | 16.7 | 2143.9 | -2.7 |
| 139 | 0111 0101 | 2131.88 | 2165.4 | 0.6 | 0.5 | 24.2 | 2159.7 | 5.6 |
| 140 | 0111 0100 | 2147.50 | 2181.3 | -0.0 | 0.6 | 15.9 | 2175.6 | 5.7 |
| 141 | 0111 0011 | 2163.13 | 2191.0 | -0.6 | -0.6 | 9.7 | 2191.4 | -0.4 |
| 142 | 0111 0010 | 2178.75 | 2209.5 | -0.8 | -0.6 | 18.5 | 2207.3 | 2.2 |
| 143 | 0111 0001 | 2194.38 | 2228.8 | 0.5 | 0.6 | 19.3 | 2223.1 | 5.7 |
| 144 | 0111 0000 | 2210.00 | 2233.9 | 0.6 | 0.6 | 5.1 | 2239.0 | -5.1 |
| 145 | 0110 1111 | 2225.63 | 2250.0 | -0.6 | 0.0 | 16.1 | 2254.8 | -4.8 |
| 146 | 0110 1110 | 2241.25 | 2265.0 | -0.6 | -0.6 | 15.8 | 2270.7 | -4.8 |
| 147 | 0110 1101 | 2256.88 | 2291.1 | 0.0 | -0.6 | 25.2 | 2286.5 | 4.6 |
| 148 | 0110 1100 | 2272.50 | 2300.0 | 0.6 | 0.6 | 8.9 | 2302.4 | -2.3 |
| 149 | 0110 1011 | 2288.13 | 2315.8 | 0.6 | 0.6 | 15.7 | 2318.2 | -2.4 |
| 150 | 0110 1010 | 2303.75 | 2333.6 | -0.7 | 2.1 | 17.8 | 2334.0 | -0.4 |
| 151 | 0110 1001 | 2319.38 | 2357.6 | -0.6 | -0.6 | 23.9 | 2349.9 | 7.7 |
| 152 | 0110 1000 | 2335.00 | 2363.9 | 0.6 | -0.1 | 6.3 | 2365.7 | -1.8 |
| 153 | 0110 0111 | 2350.63 | 2376.0 | 0.6 | 0.5 | 12.1 | 2381.6 | -5.6 |
| 154 | 0110 0110 | 2366.25 | 2393.6 | -0.1 | 0.5 | 17.6 | 2397.4 | -3.8 |
| 155 | 0110 0101 | 2381.88 | 2418.1 | -0.6 | -0.6 | 24.4 | 2413.3 | 4.8 |
| 156 | 0110 0100 | 2397.50 | 2436.7 | -0.7 | -0.7 | 18.7 | 2429.1 | 7.6 |
| 157 | 0110 0011 | 2413.13 | 2442.4 | 0.6 | 0.6 | 5.6 | 2445.0 | -2.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 653

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=4



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCRFASF
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 158 | 0110 0010 | 2428.75 | 2461.1 0.5 0.5 | 18.7 | 2460.8 0.3 |
| 159 | 0110 0001 | 2444.38 | 2481.4 -0.5 0.0 | 20.2 | 2476.7 4.7 |
| 160 | 0110 0000 | 2460.00 | 2491.2 -0.7 -0.7 | 9.8 | 2492.5 -1.4 |
| 161 | 0101 1111 | 2475.63 | 2502.5 0.0 -0.6 | 11.3 | 2508.4 -5.9 |
| 162 | 0101 1110 | 2491.25 | 2517.4 0.5 0.6 | 14.9 | 2524.2 -6.8 |
| 163 | 0101 1101 | 2506.88 | 2543.6 0.6 0.6 | 26.1 | 2540.1 3.5 |
| 164 | 0101 1100 | 2522.50 | 2550.3 -0.6 -0.6 | 6.7 | 2555.9 -5.7 |
| 165 | 0101 1011 | 2538.13 | 2568.8 -0.6 -0.5 | 18.5 | 2571.8 -3.0 |
| 166 | 0101 1010 | 2553.75 | 2584.8 0.6 -0.1 | 16.0 | 2587.6 -2.8 |
| 167 | 0101 1001 | 2569.38 | 2607.4 0.6 0.6 | 22.5 | 2603.4 3.9 |
| 168 | 0101 1000 | 2585.00 | 2614.5 -0.0 0.7 | 7.1 | 2619.3 -4.8 |
| 169 | 0101 0111 | 2600.63 | 2629.1 -0.5 -0.6 | 14.6 | 2635.1 -6.0 |
| 170 | 0101 0110 | 2616.25 | 2646.6 -0.8 -0.8 | 17.4 | 2651.0 -4.4 |
| 171 | 0101 0101 | 2631.88 | 2670.3 0.6 0.5 | 23.8 | 2666.8 3.5 |
| 172 | 0101 0100 | 2647.50 | 2686.5 0.6 0.6 | 16.1 | 2682.7 3.8 |
| 173 | 0101 0011 | 2663.13 | 2695.7 -0.6 0.0 | 9.2 | 2698.5 -2.8 |
| 174 | 0101 0010 | 2678.75 | 2714.2 -0.7 -0.7 | 18.5 | 2714.4 -0.2 |
| 175 | 0101 0001 | 2694.38 | 2734.3 0.0 -0.5 | 20.1 | 2730.2 4.0 |
| 176 | 0101 0000 | 2710.00 | 2749.3 0.6 0.6 | 15.0 | 2746.1 3.2 |
| 177 | 0100 1111 | 2725.63 | 2754.2 0.5 0.5 | 5.0 | 2761.9 -7.7 |
| 178 | 0100 1110 | 2741.25 | 2770.5 -0.6 -0.6 | 16.3 | 2777.8 -7.2 |
| 179 | 0100 1101 | 2756.88 | 2796.4 -0.6 -0.6 | 25.8 | 2793.6 2.8 |
| 180 | 0100 1100 | 2772.50 | 2805.4 0.6 -0.1 | 9.0 | 2809.5 -4.1 |
| 181 | 0100 1011 | 2788.13 | 2820.5 0.5 0.6 | 15.1 | 2825.3 -4.8 |
| 182 | 0100 1010 | 2803.75 | 2837.5 0.0 0.6 | 17.0 | 2841.2 -3.6 |
| 183 | 0100 1001 | 2819.38 | 2862.5 -0.6 -0.6 | 25.0 | 2857.0 5.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 654
 1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)



RV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2875.0 | -0.7 | -0.6 | 12.8 | 2872.8 | 2.5 |
| 185 | 0100 0111 | 2850.63 | 2880.9 | 0.6 | 0.6 | 5.5 | 2888.7 | -7.8 |
| 186 | 0100 0110 | 2866.25 | 2898.5 | 0.6 | 0.5 | 17.6 | 2904.5 | -6.1 |
| 187 | 0100 0101 | 2881.88 | 2923.2 | -0.5 | 0.1 | 24.7 | 2920.4 | 2.8 |
| 188 | 0100 0100 | 2897.50 | 2942.5 | -0.6 | -0.6 | 19.2 | 2936.2 | 6.2 |
| 189 | 0100 0011 | 2913.13 | 2948.0 | 0.0 | -0.6 | 5.5 | 2952.1 | -4.1 |
| 190 | 0100 0010 | 2928.75 | 2966.2 | 0.4 | 0.6 | 18.2 | 2967.9 | -1.7 |
| 191 | 0100 0001 | 2944.38 | 2986.3 | 0.5 | 0.5 | 20.1 | 2983.8 | 2.6 |
| 192 | 0100 0000 | 2960.00 | 3003.6 | -0.8 | -0.6 | 17.2 | 2999.6 | 4.0 |
| 193 | 0011 1111 | 2975.63 | 3007.8 | -0.6 | -0.6 | 4.2 | 3015.5 | -7.7 |
| 194 | 0011 1110 | 2991.25 | 3022.4 | 0.7 | 0.1 | 14.6 | 3031.3 | -8.9 |
| 195 | 0011 1101 | 3006.88 | 3049.5 | 0.5 | 0.6 | 27.1 | 3047.2 | 2.4 |
| 196 | 0011 1100 | 3022.50 | 3054.3 | 0.0 | 0.6 | 4.8 | 3063.0 | -8.7 |
| 197 | 0011 1011 | 3038.13 | 3074.5 | -0.7 | -0.6 | 20.2 | 3078.9 | -4.4 |
| 198 | 0011 1010 | 3053.75 | 3090.5 | -0.6 | -0.6 | 16.0 | 3094.7 | -4.2 |
| 199 | 0011 1001 | 3069.38 | 3113.4 | 0.6 | 0.6 | 22.9 | 3110.6 | 2.9 |
| 200 | 0011 1000 | 3085.00 | 3120.1 | 0.6 | 0.6 | 6.7 | 3126.4 | -6.3 |
| 201 | 0011 0111 | 3100.63 | 3135.2 | -0.6 | 0.0 | 15.1 | 3142.2 | -7.1 |
| 202 | 0011 0110 | 3116.25 | 3152.3 | -0.6 | -0.6 | 17.2 | 3158.1 | -5.8 |
| 203 | 0011 0101 | 3131.88 | 3177.3 | -0.1 | -0.6 | 25.0 | 3173.9 | 3.4 |
| 204 | 0011 0100 | 3147.50 | 3192.2 | 0.6 | 0.6 | 14.9 | 3189.8 | 2.4 |
| 205 | 0011 0011 | 3163.13 | 3201.5 | 0.6 | 0.6 | 9.2 | 3205.6 | -4.2 |
| 206 | 0011 0010 | 3178.75 | 3220.5 | -0.7 | -0.6 | 19.0 | 3221.5 | -1.0 |
| 207 | 0011 0001 | 3194.38 | 3241.5 | -0.6 | -0.6 | 20.9 | 3237.3 | 4.1 |
| 208 | 0011 0000 | 3210.00 | 3248.3 | 0.7 | 0.0 | 6.8 | 3253.2 | -4.9 |
| 209 | 0010 1111 | 3225.63 | 3261.2 | 0.5 | 0.5 | 13.0 | 3269.0 | -7.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 605

1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)



30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3276.7 | 0.0 | 0.7 | 15.5 | 3284.9 | -8.1 |
| 211 | 0010 1101 | 3256.88 | 3304.1 | -0.6 | -0.6 | 27.4 | 3300.7 | 2.4 |
| 212 | 0010 1100 | 3272.50 | 3312.1 | -0.7 | -0.6 | 0.0 | 3316.6 | -4.4 |
| 213 | 0010 1011 | 3288.13 | 3327.9 | 0.5 | 0.7 | 15.8 | 3332.4 | -4.5 |
| 214 | 0010 1010 | 3303.75 | 3344.5 | 0.5 | 1.4 | 16.6 | 3348.3 | -3.7 |
| 215 | 0010 1001 | 3319.38 | 3368.4 | -0.7 | 0.0 | 23.9 | 3364.1 | 4.3 |
| 216 | 0010 1000 | 3335.00 | 3379.8 | -0.6 | -0.6 | 11.4 | 3380.0 | -0.1 |
| 217 | 0010 0111 | 3350.63 | 3389.5 | -0.1 | -0.6 | 9.7 | 3395.8 | -6.3 |
| 218 | 0010 0110 | 3366.25 | 3406.5 | 0.4 | 0.6 | 17.0 | 3411.6 | -5.1 |
| 219 | 0010 0101 | 3381.88 | 3431.5 | 0.5 | 0.6 | 24.9 | 3427.5 | 4.0 |
| 220 | 0010 0100 | 3397.50 | 3450.4 | -0.7 | -0.1 | 19.0 | 3443.3 | 7.1 |
| 221 | 0010 0011 | 3413.13 | 3456.7 | -0.6 | -0.6 | 6.2 | 3459.2 | -2.5 |
| 222 | 0010 0010 | 3428.75 | 3474.9 | 0.5 | -0.1 | 18.3 | 3475.0 | -0.1 |
| 223 | 0010 0001 | 3444.38 | 3495.7 | 0.4 | 0.6 | 20.8 | 3490.9 | 4.8 |
| 224 | 0010 0000 | 3460.00 | 3504.0 | -0.1 | 0.7 | 8.3 | 3506.7 | -2.7 |
| 225 | 0001 1111 | 3475.63 | 3517.0 | -0.6 | -0.5 | 13.0 | 3522.6 | -5.5 |
| 226 | 0001 1110 | 3491.25 | 3532.5 | -0.8 | -0.7 | 15.5 | 3538.4 | -5.9 |
| 227 | 0001 1101 | 3506.88 | 3559.3 | 0.4 | -0.1 | 26.7 | 3554.3 | 5.0 |
| 228 | 0001 1100 | 3522.50 | 3564.2 | 0.6 | 0.6 | 4.9 | 3570.1 | -6.0 |
| 229 | 0001 1011 | 3538.13 | 3584.2 | -0.8 | -0.0 | 20.1 | 3586.0 | -1.7 |
| 230 | 0001 1010 | 3553.75 | 3600.9 | -0.6 | -0.6 | 16.6 | 3601.8 | -0.9 |
| 231 | 0001 1001 | 3569.38 | 3624.5 | -0.2 | -0.6 | 23.6 | 3617.7 | 6.8 |
| 232 | 0001 1000 | 3585.00 | 3630.5 | 0.6 | 0.7 | 6.0 | 3633.5 | -3.0 |
| 233 | 0001 0111 | 3600.63 | 3644.9 | 0.6 | 0.6 | 14.4 | 3649.4 | -4.4 |
| 234 | 0001 0110 | 3616.25 | 3662.8 | -0.9 | 0.0 | 17.9 | 3665.2 | -2.4 |
| 235 | 0001 0101 | 3631.88 | 3688.4 | -0.7 | -0.5 | 25.6 | 3681.0 | 7.3 |
| 236 | 0001 0100 | 3647.50 | 3703.4 | 0.6 | 0.0 | 15.0 | 3696.9 | 6.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 656
 1981/11/30 15:51:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3712.4 | 0.5 | 0.6 | 9.1 | 3712.7 | -0.3 |
| 238 | 0001 0010 | 3678.75 | 3732.9 | -0.1 | 0.6 | 20.5 | 3728.6 | 4.3 |
| 239 | 0001 0001 | 3694.38 | 3753.0 | -0.7 | -0.5 | 20.1 | 3744.4 | 8.5 |
| 240 | 0001 0000 | 3710.00 | 3771.2 | -0.7 | -0.6 | 19.2 | 3760.3 | 10.9 |
| 241 | 0000 1111 | 3725.63 | 3772.8 | 0.6 | -0.0 | 1.5 | 3776.1 | -3.4 |
| 242 | 0000 1110 | 3741.25 | 3788.3 | 0.5 | 0.6 | 15.5 | 3792.0 | -3.7 |
| 243 | 0000 1101 | 3756.88 | 3816.2 | -0.9 | -0.0 | 27.9 | 3807.8 | 8.4 |
| 244 | 0000 1100 | 3772.50 | 3824.7 | -0.6 | -0.6 | 0.5 | 3823.7 | 1.0 |
| 245 | 0000 1011 | 3788.13 | 3840.6 | -0.1 | -0.6 | 15.9 | 3839.5 | 1.0 |
| 246 | 0000 1010 | 3803.75 | 3858.0 | 0.5 | 0.6 | 17.5 | 3855.4 | 2.7 |
| 247 | 0000 1001 | 3819.38 | 3882.8 | 0.5 | 0.6 | 24.7 | 3871.2 | 11.5 |
| 248 | 0000 1000 | 3835.00 | 3897.2 | -0.8 | 0.0 | 14.5 | 3887.1 | 10.2 |
| 249 | 0000 0111 | 3850.63 | 3902.1 | -0.6 | -0.5 | 4.8 | 3902.9 | -0.8 |
| 250 | 0000 0110 | 3866.25 | 3919.1 | 0.5 | 0.0 | 17.0 | 3918.8 | 0.3 |
| 251 | 0000 0101 | 3881.88 | 3944.7 | 0.4 | 0.6 | 25.6 | 3934.6 | 10.1 |
| 252 | 0000 0100 | 3897.50 | 3963.5 | -0.2 | 0.5 | 18.8 | 3950.4 | 13.1 |
| 253 | 0000 0011 | 3913.13 | 3969.9 | -0.6 | -0.7 | 6.3 | 3966.3 | 3.6 |
| 254 | 0000 0010 | 3928.75 | 3988.7 | -0.6 | -0.6 | 18.9 | 3982.1 | 6.6 |
| 255 | 0000 0001 | 3944.38 | 4009.4 | 0.3 | -0.0 | 20.7 | 3998.0 | 11.4 |

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12/30/81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 657
1981/11/30 15:58:13 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=5)
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.857X - 41.2MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.486%
OFFSET IS: -41.2MV
COEFFICIENT OF DETERMINATION IS: $R^2 = .99998190$
ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.742MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.4MV | 227 | 15.923MV | 2.5MV | 241 | 5.921MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 0.9MV | 196 | -0.053MV | -6.5MV | 144 | .729MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 1.0MV | 178 | 0.003MV | -0.9MV | 143 | .651MV |

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 658
 1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=5)



NOV 30 '81

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -28.5 | 0.3 | 0.7 | | -25.3 | -3.2 |
| 2 | 1111 1110 | -8.750 | -16.5 | 0.0 | 0.6 | 12.0 | -9.5 | -7.0 |
| 3 | 1111 1101 | 6.875 | 8.2 | -0.8 | -0.7 | 24.7 | 6.4 | 1.8 |
| 4 | 1111 1100 | 22.500 | 20.5 | -0.0 | -0.7 | 12.3 | 22.2 | -1.8 |
| 5 | 1111 1011 | 38.125 | 37.8 | 0.6 | 0.7 | 17.3 | 38.1 | -0.3 |
| 6 | 1111 1010 | 53.750 | 52.2 | 0.7 | 0.7 | 14.3 | 54.0 | -1.8 |
| 7 | 1111 1001 | 69.375 | 74.8 | -0.8 | 0.0 | 22.6 | 69.8 | 5.0 |
| 8 | 1111 1000 | 85.000 | 80.1 | -0.7 | -0.7 | 5.3 | 85.7 | -5.6 |
| 9 | 1111 0111 | 100.625 | 100.4 | -0.1 | -0.6 | 20.3 | 101.5 | -1.1 |
| 10 | 1111 0110 | 116.250 | 113.6 | 0.7 | 0.7 | 13.2 | 117.4 | -3.7 |
| 11 | 1111 0101 | 131.875 | 135.7 | -0.1 | 0.7 | 22.1 | 133.2 | 2.5 |
| 12 | 1111 0100 | 147.500 | 152.1 | -0.7 | -0.7 | 16.4 | 149.1 | 3.0 |
| 13 | 1111 0011 | 163.125 | 164.3 | -0.8 | -0.7 | 12.1 | 165.0 | -0.7 |
| 14 | 1111 0010 | 178.750 | 182.3 | 0.6 | 0.1 | 18.0 | 180.8 | 1.5 |
| 15 | 1111 0001 | 194.375 | 202.1 | 0.6 | 0.7 | 19.8 | 196.7 | 5.4 |
| 16 | 1111 0000 | 210.000 | 211.6 | -0.1 | 0.6 | 9.5 | 212.5 | -0.9 |
| 17 | 1110 1111 | 225.625 | 227.5 | -0.7 | -0.7 | 15.8 | 228.4 | -0.9 |
| 18 | 1110 1110 | 241.250 | 239.8 | -0.1 | -0.7 | 12.4 | 244.2 | -4.4 |
| 19 | 1110 1101 | 256.875 | 262.7 | 0.6 | 0.7 | 22.8 | 260.1 | 2.6 |
| 20 | 1110 1100 | 272.500 | 277.6 | 0.6 | 0.6 | 14.9 | 276.0 | 1.7 |
| 21 | 1110 1011 | 288.125 | 291.2 | -0.7 | -0.0 | 13.6 | 291.8 | -0.6 |
| 22 | 1110 1010 | 303.750 | 308.4 | -0.8 | -0.7 | 17.1 | 307.7 | 0.7 |
| 23 | 1110 1001 | 319.375 | 329.8 | -0.0 | -0.6 | 21.4 | 323.5 | 6.2 |
| 24 | 1110 1000 | 335.000 | 339.3 | 0.7 | 0.8 | 9.5 | 339.4 | -0.1 |
| 25 | 1110 0111 | 350.625 | 354.8 | -0.1 | 0.7 | 15.4 | 355.2 | -0.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 659
 1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=5)



11 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 369.8 | -0.8 | -0.7 | 15.0 | 371.1 | -1.3 |
| 27 | 1110 0101 | 381.875 | 391.3 | -0.8 | -0.7 | 21.5 | 387.0 | 4.4 |
| 28 | 1110 0100 | 397.500 | 409.3 | 0.6 | 0.0 | 18.0 | 402.8 | 6.5 |
| 29 | 1110 0011 | 413.125 | 418.4 | 0.6 | 0.6 | 9.1 | 418.7 | -0.7 |
| 30 | 1110 0010 | 428.750 | 437.6 | -0.0 | 0.7 | 19.1 | 434.5 | 3.0 |
| 31 | 1110 0001 | 444.375 | 457.6 | -0.7 | -0.6 | 20.0 | 450.4 | 7.2 |
| 32 | 1110 0000 | 460.000 | 462.4 | 0.0 | -0.7 | 4.8 | 466.2 | -3.9 |
| 33 | 1101 1111 | 475.625 | 482.2 | 0.6 | 0.7 | 19.8 | 482.1 | 0.1 |
| 34 | 1101 1110 | 491.250 | 493.8 | 0.6 | 0.7 | 11.7 | 498.0 | -4.1 |
| 35 | 1101 1101 | 506.875 | 518.7 | -0.7 | 0.0 | 24.8 | 513.8 | 4.9 |
| 36 | 1101 1100 | 522.500 | 531.3 | -0.7 | -0.6 | 12.6 | 529.7 | 1.7 |
| 37 | 1101 1011 | 538.125 | 546.2 | -0.0 | -0.7 | 14.8 | 545.5 | 0.7 |
| 38 | 1101 1010 | 553.750 | 562.0 | 0.7 | 0.7 | 15.8 | 561.4 | 0.6 |
| 39 | 1101 1001 | 569.375 | 584.3 | -0.0 | 0.7 | 22.3 | 577.2 | 7.1 |
| 40 | 1101 1000 | 585.000 | 592.4 | -0.7 | -0.7 | 8.1 | 593.1 | -0.7 |
| 41 | 1101 0111 | 600.625 | 607.2 | -0.7 | -0.7 | 14.8 | 609.0 | -1.7 |
| 42 | 1101 0110 | 616.250 | 623.4 | 0.6 | -0.1 | 16.2 | 624.8 | -1.4 |
| 43 | 1101 0101 | 631.875 | 645.6 | 0.6 | 0.7 | 22.2 | 640.7 | 4.9 |
| 44 | 1101 0100 | 647.500 | 661.6 | -0.0 | 0.6 | 16.0 | 656.5 | 5.1 |
| 45 | 1101 0011 | 663.125 | 673.8 | -0.7 | -0.7 | 12.1 | 672.4 | 1.4 |
| 46 | 1101 0010 | 678.750 | 692.3 | 0.0 | -0.7 | 18.5 | 688.2 | 4.1 |
| 47 | 1101 0001 | 694.375 | 711.7 | 0.6 | 0.7 | 19.4 | 704.1 | 7.6 |
| 48 | 1101 0000 | 710.000 | 724.5 | 0.6 | 0.6 | 12.9 | 720.0 | 4.6 |
| 49 | 1100 1111 | 725.625 | 736.9 | -0.7 | 0.0 | 12.3 | 735.8 | 1.1 |
| 50 | 1100 1110 | 741.250 | 748.8 | -0.7 | -0.7 | 11.9 | 751.7 | -2.9 |
| 51 | 1100 1101 | 756.875 | 772.4 | 0.0 | -0.7 | 23.6 | 767.5 | 4.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 660

1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=5)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 783.9 | 0.7 | 0.7 | 11.5 | 783.4 | 0.6 |
| 53 | 1100 1011 | 788.125 | 799.1 | -0.1 | 0.7 | 15.2 | 799.2 | -0.1 |
| 54 | 1100 1010 | 803.750 | 816.7 | -0.7 | -0.7 | 17.6 | 815.1 | 1.6 |
| 55 | 1100 1001 | 819.375 | 838.4 | -0.7 | -0.7 | 21.7 | 831.0 | 7.4 |
| 56 | 1100 1000 | 835.000 | 849.8 | 0.8 | 0.0 | 11.4 | 846.8 | 3.0 |
| 57 | 1100 0111 | 850.625 | 859.8 | 0.7 | 0.7 | 10.0 | 862.7 | -2.9 |
| 58 | 1100 0110 | 866.250 | 877.0 | 0.0 | 0.6 | 17.2 | 878.5 | -1.6 |
| 59 | 1100 0101 | 881.875 | 899.2 | -0.7 | -0.7 | 22.3 | 894.4 | 4.8 |
| 60 | 1100 0100 | 897.500 | 918.0 | 0.0 | -0.6 | 18.8 | 910.2 | 7.8 |
| 61 | 1100 0011 | 913.125 | 925.9 | 0.7 | 0.7 | 7.9 | 926.1 | -0.2 |
| 62 | 1100 0010 | 928.750 | 944.9 | 0.5 | 0.7 | 19.0 | 942.0 | 3.0 |
| 63 | 1100 0001 | 944.375 | 965.0 | -0.7 | 0.0 | 20.1 | 957.8 | 7.2 |
| 64 | 1100 0000 | 960.000 | 973.9 | -0.6 | -0.6 | 8.9 | 973.7 | 0.3 |
| 65 | 1011 1111 | 975.625 | 986.4 | 0.0 | -0.7 | 12.5 | 989.5 | -3.1 |
| 66 | 1011 1110 | 991.250 | 1000.6 | 0.7 | 0.7 | 14.1 | 1005.4 | -4.8 |
| 67 | 1011 1101 | 1006.88 | 1025.2 | 0.0 | 0.8 | 24.7 | 1021.2 | 4.0 |
| 68 | 1011 1100 | 1022.50 | 1033.3 | -0.7 | -0.7 | 8.1 | 1037.1 | -3.8 |
| 69 | 1011 1011 | 1038.13 | 1052.7 | -0.7 | -0.7 | 19.4 | 1053.0 | -0.2 |
| 70 | 1011 1010 | 1053.75 | 1067.8 | 0.7 | -0.0 | 15.0 | 1068.8 | -1.0 |
| 71 | 1011 1001 | 1069.38 | 1091.6 | 0.7 | 0.8 | 23.8 | 1084.7 | 6.9 |
| 72 | 1011 1000 | 1085.00 | 1095.4 | 0.0 | 0.6 | 3.8 | 1100.5 | -5.2 |
| 73 | 1011 0111 | 1100.63 | 1113.2 | -0.7 | -0.7 | 17.9 | 1116.4 | -3.1 |
| 74 | 1011 0110 | 1116.25 | 1129.8 | 0.1 | -0.7 | 16.5 | 1132.2 | -2.5 |
| 75 | 1011 0101 | 1131.88 | 1152.3 | 0.6 | 0.6 | 22.5 | 1148.1 | 4.2 |
| 76 | 1011 0100 | 1147.50 | 1167.0 | 0.7 | 0.6 | 14.7 | 1164.0 | 3.0 |
| 77 | 1011 0011 | 1163.13 | 1179.4 | -0.7 | 0.0 | 12.5 | 1179.8 | -0.4 |
| 78 | 1011 0010 | 1178.75 | 1197.5 | -0.7 | -0.7 | 18.1 | 1195.7 | 1.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 661

1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=5)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1218.9 | -0.1 | -0.8 | 21.3 | 1211.5 | 7.3 |
| 80 | 1011 0000 | 1210.00 | 1224.9 | 0.7 | 0.6 | 6.1 | 1227.4 | -2.4 |
| 81 | 1010 1111 | 1225.63 | 1238.1 | -0.0 | 0.8 | 13.1 | 1243.2 | -5.1 |
| 82 | 1010 1110 | 1241.25 | 1253.8 | -0.7 | -0.7 | 15.7 | 1259.1 | -5.3 |
| 83 | 1010 1101 | 1256.88 | 1278.3 | -0.6 | -0.7 | 24.5 | 1275.0 | 3.4 |
| 84 | 1010 1100 | 1272.50 | 1287.9 | 0.6 | -0.0 | 9.5 | 1290.8 | -2.9 |
| 85 | 1010 1011 | 1288.13 | 1304.3 | 0.6 | 0.7 | 16.4 | 1306.7 | -2.4 |
| 86 | 1010 1010 | 1303.75 | 1320.6 | 0.0 | 0.6 | 16.3 | 1322.5 | -1.9 |
| 87 | 1010 1001 | 1319.38 | 1344.3 | -0.7 | -0.7 | 23.7 | 1338.4 | 6.0 |
| 88 | 1010 1000 | 1335.00 | 1353.0 | -0.1 | -0.8 | 8.6 | 1354.2 | -1.3 |
| 89 | 1010 0111 | 1350.63 | 1364.7 | 0.7 | 0.6 | 11.7 | 1370.1 | -5.4 |
| 90 | 1010 0110 | 1366.25 | 1381.7 | 0.6 | 0.6 | 16.9 | 1386.0 | -4.3 |
| 91 | 1010 0101 | 1381.88 | 1405.1 | -0.7 | 0.0 | 23.4 | 1401.8 | 3.3 |
| 92 | 1010 0100 | 1397.50 | 1422.7 | -0.7 | -0.6 | 17.6 | 1417.7 | 5.1 |
| 93 | 1010 0011 | 1413.13 | 1431.5 | 0.0 | -0.8 | 8.7 | 1433.5 | -2.1 |
| 94 | 1010 0010 | 1428.75 | 1449.5 | 0.7 | 0.7 | 18.0 | 1449.4 | 0.1 |
| 95 | 1010 0001 | 1444.38 | 1470.0 | -0.0 | 0.8 | 20.5 | 1465.2 | 4.7 |
| 96 | 1010 0000 | 1460.00 | 1477.8 | -0.8 | -0.7 | 7.8 | 1481.1 | -3.3 |
| 97 | 1001 1111 | 1475.63 | 1491.3 | -0.7 | -0.7 | 13.5 | 1497.0 | -5.7 |
| 98 | 1001 1110 | 1491.25 | 1505.6 | 0.5 | -0.1 | 14.3 | 1512.8 | -7.2 |
| 99 | 1001 1101 | 1506.88 | 1530.4 | 0.7 | 0.8 | 24.8 | 1528.7 | 1.7 |
| 100 | 1001 1100 | 1522.50 | 1537.5 | 0.0 | 0.7 | 7.1 | 1544.5 | -7.0 |
| 101 | 1001 1011 | 1538.13 | 1557.4 | -0.9 | -0.7 | 19.9 | 1560.4 | -2.9 |
| 102 | 1001 1010 | 1553.75 | 1572.7 | 0.1 | -0.6 | 15.3 | 1576.2 | -3.5 |
| 103 | 1001 1001 | 1569.38 | 1596.2 | 0.6 | 0.7 | 23.4 | 1592.1 | 4.1 |
| 104 | 1001 1000 | 1585.00 | 1602.4 | 0.6 | 0.7 | 6.3 | 1608.0 | -5.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 662

1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=5)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDFAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER UPPER | POINT | | DEVIATION | |
| 105 | 1001 0111 | 1600.63 | 1617.9 | -0.8 | 0.0 | 15.5 | 1623.8 | -5.9 |
| 106 | 1001 0110 | 1616.25 | 1634.4 | -0.7 | -0.7 | 16.5 | 1639.7 | -5.3 |
| 107 | 1001 0101 | 1631.88 | 1657.7 | -0.0 | -0.8 | 23.3 | 1655.5 | 2.2 |
| 108 | 1001 0100 | 1647.50 | 1672.1 | 0.7 | 0.7 | 14.4 | 1671.4 | 0.7 |
| 109 | 1001 0011 | 1663.13 | 1683.3 | -0.0 | 0.7 | 11.3 | 1687.2 | -3.9 |
| 110 | 1001 0010 | 1678.75 | 1702.1 | -0.8 | -0.8 | 18.7 | 1703.1 | -1.0 |
| 111 | 1001 0001 | 1694.38 | 1723.4 | -0.8 | -0.8 | 21.3 | 1719.0 | 4.4 |
| 112 | 1001 0000 | 1710.00 | 1738.1 | 0.6 | 0.0 | 14.7 | 1734.8 | 3.3 |
| 113 | 1000 1111 | 1725.63 | 1742.7 | 0.7 | 0.7 | 4.6 | 1750.7 | -7.9 |
| 114 | 1000 1110 | 1741.25 | 1757.8 | -0.1 | 0.5 | 15.1 | 1766.5 | -8.7 |
| 115 | 1000 1101 | 1756.88 | 1783.2 | -0.8 | -0.8 | 25.3 | 1782.4 | 0.8 |
| 116 | 1000 1100 | 1772.50 | 1793.6 | 0.0 | -0.7 | 10.4 | 1798.2 | -4.7 |
| 117 | 1000 1011 | 1788.13 | 1808.7 | 0.7 | 0.7 | 15.1 | 1814.1 | -5.4 |
| 118 | 1000 1010 | 1803.75 | 1824.8 | 0.7 | 0.7 | 16.1 | 1830.0 | -5.2 |
| 119 | 1000 1001 | 1819.38 | 1848.8 | -0.8 | 0.0 | 24.0 | 1845.8 | 3.0 |
| 120 | 1000 1000 | 1835.00 | 1859.9 | -0.4 | -0.8 | 11.1 | 1861.7 | -1.8 |
| 121 | 1000 0111 | 1850.63 | 1869.8 | 0.0 | -0.7 | 9.9 | 1877.5 | -7.7 |
| 122 | 1000 0110 | 1866.25 | 1885.9 | 0.8 | 0.7 | 16.1 | 1893.4 | -7.5 |
| 123 | 1000 0101 | 1881.88 | 1908.7 | 0.1 | 0.7 | 22.8 | 1909.2 | -0.5 |
| 124 | 1000 0100 | 1897.50 | 1927.5 | -0.8 | -0.7 | 18.8 | 1925.1 | 2.5 |
| 125 | 1000 0011 | 1913.13 | 1935.6 | -0.5 | -0.5 | 8.1 | 1941.0 | -5.3 |
| 126 | 1000 0010 | 1928.75 | 1953.7 | 0.7 | 0.0 | 18.0 | 1956.8 | -3.1 |
| 127 | 1000 0001 | 1944.38 | 1974.3 | 0.7 | 0.8 | 20.7 | 1972.7 | 1.7 |
| 128 | 1000 0000 | 1960.00 | 1991.3 | 0.0 | 0.8 | 16.9 | 1988.5 | 2.8 |
| 129 | 0111 1111 | 1975.63 | 2000.9 | 0.5 | -0.8 | 9.6 | 2004.4 | -3.5 |
| 130 | 0111 1110 | 1991.25 | 2016.7 | 0.1 | -0.7 | 15.8 | 2020.2 | -3.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODFL.. FLT. S/N 3 PAGE 663
 1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=5)



NY 30 70

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2040.8 | 0.8 | 0.8 | 24.1 | 2036.1 | 4.7 |
| 132 | 0111 1100 | 2022.50 | 2047.7 | 0.7 | 0.7 | 6.9 | 2052.0 | -4.2 |
| 133 | 0111 1011 | 2038.13 | 2067.4 | -0.6 | 0.1 | 19.6 | 2067.8 | -0.5 |
| 134 | 0111 1010 | 2053.75 | 2087.2 | -0.7 | -0.6 | 19.8 | 2083.7 | 3.5 |
| 135 | 0111 1001 | 2069.38 | 2108.3 | 0.0 | -0.7 | 21.1 | 2099.5 | 8.8 |
| 136 | 0111 1000 | 2085.00 | 2111.2 | 0.5 | 0.5 | 2.9 | 2115.4 | -4.2 |
| 137 | 0111 0111 | 2100.63 | 2127.0 | -0.0 | 0.7 | 15.8 | 2131.2 | -4.2 |
| 138 | 0111 0110 | 2116.25 | 2145.2 | -0.7 | -0.7 | 18.1 | 2147.1 | -1.9 |
| 139 | 0111 0101 | 2131.88 | 2168.8 | -0.8 | -0.7 | 23.6 | 2163.0 | 5.9 |
| 140 | 0111 0100 | 2147.50 | 2183.7 | 0.7 | -0.0 | 14.8 | 2178.8 | 4.9 |
| 141 | 0111 0011 | 2163.13 | 2193.1 | 0.7 | 0.8 | 9.5 | 2194.7 | -1.5 |
| 142 | 0111 0010 | 2178.75 | 2216.3 | 0.0 | 0.7 | 23.2 | 2210.5 | 5.8 |
| 143 | 0111 0001 | 2194.38 | 2235.2 | -0.9 | -0.9 | 18.9 | 2226.4 | 8.8 |
| 144 | 0111 0000 | 2210.00 | 2243.9 | -6.5 | -0.7 | 8.7 | 2242.2 | 1.7 |
| 145 | 0110 1111 | 2225.63 | 2252.6 | 0.8 | 0.8 | 8.6 | 2258.1 | -5.5 |
| 146 | 0110 1110 | 2241.25 | 2268.8 | 0.5 | 0.7 | 16.2 | 2274.0 | -5.7 |
| 147 | 0110 1101 | 2256.88 | 2294.1 | -0.7 | 0.0 | 25.3 | 2289.8 | 4.3 |
| 148 | 0110 1100 | 2272.50 | 2303.9 | -0.7 | -0.7 | 9.8 | 2305.7 | -1.8 |
| 149 | 0110 1011 | 2288.13 | 2319.6 | 0.0 | -0.7 | 15.7 | 2321.5 | -1.9 |
| 150 | 0110 1010 | 2303.75 | 2339.7 | 0.7 | 0.7 | 20.1 | 2337.4 | 2.3 |
| 151 | 0110 1001 | 2319.38 | 2359.9 | 0.0 | 0.7 | 20.2 | 2353.2 | 6.7 |
| 152 | 0110 1000 | 2335.00 | 2369.8 | -0.8 | -0.7 | 9.9 | 2369.1 | 0.7 |
| 153 | 0110 0111 | 2350.63 | 2380.0 | -0.6 | -0.7 | 10.2 | 2385.0 | -5.0 |
| 154 | 0110 0110 | 2366.25 | 2397.2 | 0.6 | 0.0 | 17.2 | 2400.8 | -3.6 |
| 155 | 0110 0101 | 2381.88 | 2420.4 | 0.7 | 0.7 | 23.3 | 2416.7 | 3.8 |
| 156 | 0110 0100 | 2397.50 | 2438.9 | 0.0 | 0.7 | 18.5 | 2432.5 | 6.4 |
| 157 | 0110 0011 | 2413.13 | 2446.1 | -0.6 | -0.8 | 7.2 | 2448.4 | -2.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 664
 1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=5)

HAC
TEST
527

1130 01

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2469.6 | -0.0 | -0.7 | 23.5 | 2464.2 | 5.3 |
| 159 | 0110 0001 | 2444.38 | 2486.5 | 0.7 | 0.7 | 16.9 | 2480.1 | 6.4 |
| 160 | 0110 0000 | 2460.00 | 2492.9 | 0.6 | 0.6 | 6.4 | 2496.0 | -3.1 |
| 161 | 0101 1111 | 2475.63 | 2505.9 | -0.7 | 0.0 | 13.0 | 2511.8 | -5.9 |
| 162 | 0101 1110 | 2491.25 | 2522.2 | -0.7 | -0.8 | 16.3 | 2527.7 | -5.5 |
| 163 | 0101 1101 | 2506.88 | 2547.3 | -0.0 | -0.7 | 25.1 | 2543.5 | 3.7 |
| 164 | 0101 1100 | 2522.50 | 2553.0 | 0.8 | 0.8 | 5.7 | 2559.4 | -6.4 |
| 165 | 0101 1011 | 2538.13 | 2571.6 | -0.0 | 0.7 | 18.6 | 2575.2 | -3.6 |
| 166 | 0101 1010 | 2553.75 | 2589.0 | -0.8 | -0.7 | 17.4 | 2591.1 | -2.1 |
| 167 | 0101 1001 | 2569.38 | 2613.3 | -0.6 | -0.6 | 24.3 | 2607.0 | 6.4 |
| 168 | 0101 1000 | 2585.00 | 2617.4 | 0.7 | 0.1 | 4.1 | 2622.8 | -5.4 |
| 169 | 0101 0111 | 2600.63 | 2632.0 | 0.6 | 0.7 | 14.6 | 2638.7 | -6.6 |
| 170 | 0101 0110 | 2616.25 | 2649.5 | -0.0 | 0.6 | 17.5 | 2654.5 | -5.0 |
| 171 | 0101 0101 | 2631.88 | 2674.0 | -0.7 | -0.6 | 24.4 | 2670.4 | 3.6 |
| 172 | 0101 0100 | 2647.50 | 2690.1 | 0.0 | -0.7 | 16.1 | 2686.2 | 3.8 |
| 173 | 0101 0011 | 2663.13 | 2698.4 | 0.7 | 0.7 | 8.3 | 2702.1 | -3.7 |
| 174 | 0101 0010 | 2678.75 | 2717.8 | 0.5 | 0.6 | 19.4 | 2718.0 | -0.2 |
| 175 | 0101 0001 | 2694.38 | 2740.2 | -0.7 | 0.1 | 22.4 | 2733.8 | 6.4 |
| 176 | 0101 0000 | 2710.00 | 2752.9 | -0.7 | -0.7 | 12.6 | 2749.7 | 3.2 |
| 177 | 0100 1111 | 2725.63 | 2758.4 | -0.0 | -0.7 | 5.5 | 2765.5 | -7.1 |
| 178 | 0100 1110 | 2741.25 | 2773.8 | 0.9 | 1.0 | 15.4 | 2781.4 | -7.6 |
| 179 | 0100 1101 | 2756.88 | 2799.0 | 0.0 | 0.8 | 25.1 | 2797.2 | 1.7 |
| 180 | 0100 1100 | 2772.50 | 2809.5 | -0.8 | -0.7 | 10.6 | 2813.1 | -3.6 |
| 181 | 0100 1011 | 2788.13 | 2824.7 | -0.7 | -0.7 | 15.2 | 2829.0 | -4.2 |
| 182 | 0100 1010 | 2803.75 | 2841.2 | 0.8 | 0.1 | 16.5 | 2844.8 | -3.6 |
| 183 | 0100 1001 | 2819.38 | 2865.1 | 0.7 | 0.8 | 23.9 | 2860.7 | 4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 665

1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=5)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2875.5 | -0.1 | 0.5 | 10.4 | 2876.5 | -1.0 |
| 185 | 0100 0111 | 2850.63 | 2885.2 | -0.8 | -0.7 | 9.7 | 2892.4 | -7.2 |
| 186 | 0100 0110 | 2866.25 | 2902.9 | 0.0 | -0.7 | 17.7 | 2908.2 | -5.3 |
| 187 | 0100 0101 | 2881.88 | 2925.9 | 0.7 | 0.8 | 22.9 | 2924.1 | 1.8 |
| 188 | 0100 0100 | 2897.50 | 2944.8 | 0.8 | 0.7 | 18.9 | 2940.0 | 4.8 |
| 189 | 0100 0011 | 2913.13 | 2951.7 | -0.7 | 0.0 | 6.9 | 2955.8 | -4.1 |
| 190 | 0100 0010 | 2928.75 | 2974.8 | -0.8 | -0.7 | 23.1 | 2971.7 | 3.1 |
| 191 | 0100 0001 | 2944.38 | 2992.5 | -0.1 | -0.4 | 17.7 | 2987.5 | 4.9 |
| 192 | 0100 0000 | 2960.00 | 3004.8 | 0.7 | 0.8 | 12.4 | 3003.4 | 1.4 |
| 193 | 0011 1111 | 2975.63 | 3010.7 | 0.1 | 0.9 | 5.9 | 3019.2 | -8.5 |
| 194 | 0011 1110 | 2991.25 | 3027.4 | -0.8 | -0.8 | 16.6 | 3035.1 | -7.7 |
| 195 | 0011 1101 | 3006.88 | 3053.5 | -0.7 | -0.8 | 26.1 | 3051.0 | 2.5 |
| 196 | 0011 1100 | 3022.50 | 3057.9 | 0.9 | 0.0 | 4.4 | 3066.8 | -8.9 |
| 197 | 0011 1011 | 3038.13 | 3077.3 | 0.8 | 0.9 | 19.3 | 3082.7 | -5.4 |
| 198 | 0011 1010 | 3053.75 | 3094.0 | -0.0 | 0.8 | 16.7 | 3098.5 | -4.6 |
| 199 | 0011 1001 | 3069.38 | 3119.9 | -0.8 | -0.8 | 25.9 | 3114.4 | 5.5 |
| 200 | 0011 1000 | 3085.00 | 3123.1 | 0.0 | -0.7 | 3.2 | 3130.2 | -7.1 |
| 201 | 0011 0111 | 3100.63 | 3138.2 | 0.6 | 0.7 | 15.1 | 3146.1 | -7.9 |
| 202 | 0011 0110 | 3116.25 | 3155.6 | 0.7 | 0.8 | 17.3 | 3162.0 | -6.4 |
| 203 | 0011 0101 | 3131.88 | 3180.9 | -0.8 | -0.0 | 25.3 | 3177.8 | 3.1 |
| 204 | 0011 0100 | 3147.50 | 3195.9 | -0.8 | -0.8 | 15.0 | 3193.7 | 2.2 |
| 205 | 0011 0011 | 3163.13 | 3205.9 | -0.1 | -0.7 | 9.9 | 3209.5 | -3.7 |
| 206 | 0011 0010 | 3178.75 | 3224.1 | 0.7 | 0.7 | 18.3 | 3225.4 | -1.2 |
| 207 | 0011 0001 | 3194.38 | 3247.0 | -0.1 | 0.8 | 22.9 | 3241.2 | 5.8 |
| 208 | 0011 0000 | 3210.00 | 3252.4 | -0.7 | -0.7 | 5.4 | 3257.1 | -4.7 |
| 209 | 0010 1111 | 3225.63 | 3265.6 | -0.7 | -0.7 | 13.2 | 3273.0 | -7.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 666

1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=15)

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| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3281.1 | 0.8 | 0.0 | 15.6 | 3288.8 | -7.7 |
| 211 | 0010 1101 | 3256.88 | 3306.9 | 0.7 | 0.8 | 25.8 | 3304.7 | 2.3 |
| 212 | 0010 1100 | 3272.50 | 3315.0 | 0.1 | 0.7 | 8.1 | 3320.5 | -5.5 |
| 213 | 0010 1011 | 3288.13 | 3332.4 | -0.8 | -0.6 | 17.4 | 3336.4 | -4.0 |
| 214 | 0010 1010 | 3303.75 | 3349.4 | -0.1 | -0.7 | 17.0 | 3352.2 | -2.8 |
| 215 | 0010 1001 | 3319.38 | 3373.6 | 0.7 | 0.8 | 24.2 | 3368.1 | 5.5 |
| 216 | 0010 1000 | 3335.00 | 3379.9 | 0.8 | 0.8 | 6.2 | 3384.0 | -4.1 |
| 217 | 0010 0111 | 3350.63 | 3393.4 | -0.7 | 0.0 | 13.5 | 3399.8 | -6.4 |
| 218 | 0010 0110 | 3366.25 | 3411.2 | -0.8 | -0.8 | 17.8 | 3415.7 | -4.5 |
| 219 | 0010 0101 | 3381.88 | 3435.6 | -0.1 | -0.8 | 24.4 | 3431.5 | 4.1 |
| 220 | 0010 0100 | 3397.50 | 3453.1 | 0.6 | 0.7 | 17.5 | 3447.4 | 5.7 |
| 221 | 0010 0011 | 3413.13 | 3459.9 | 0.0 | 0.5 | 6.8 | 3463.2 | -3.4 |
| 222 | 0010 0010 | 3428.75 | 3483.6 | -0.9 | -0.8 | 23.7 | 3479.1 | 4.5 |
| 223 | 0010 0001 | 3444.38 | 3502.5 | -0.8 | -0.8 | 18.9 | 3495.0 | 7.5 |
| 224 | 0010 0000 | 3460.00 | 3512.5 | 0.8 | 0.0 | 10.0 | 3510.8 | 1.7 |
| 225 | 0001 1111 | 3475.63 | 3520.3 | 0.5 | 0.6 | 7.8 | 3526.7 | -6.4 |
| 226 | 0001 1110 | 3491.25 | 3536.0 | -0.1 | 0.8 | 15.7 | 3542.5 | -6.6 |
| 227 | 0001 1101 | 3506.88 | 3563.4 | -0.9 | -0.7 | 27.4 | 3558.4 | 5.0 |
| 228 | 0001 1100 | 3522.50 | 3568.7 | -0.0 | -0.7 | 5.3 | 3574.2 | -5.5 |
| 229 | 0001 1011 | 3538.13 | 3587.4 | 0.6 | 0.7 | 18.7 | 3590.1 | -2.7 |
| 230 | 0001 1010 | 3553.75 | 3603.7 | 0.7 | 0.8 | 16.3 | 3606.0 | -2.3 |
| 231 | 0001 1001 | 3569.38 | 3630.4 | -0.9 | 0.0 | 26.7 | 3621.8 | 8.6 |
| 232 | 0001 1000 | 3585.00 | 3634.6 | -0.8 | -0.8 | 4.2 | 3637.7 | -3.1 |
| 233 | 0001 0111 | 3600.63 | 3648.8 | 0.6 | -0.0 | 14.2 | 3653.5 | -4.8 |
| 234 | 0001 0110 | 3616.25 | 3666.1 | 0.8 | 0.8 | 17.3 | 3669.4 | -3.3 |
| 235 | 0001 0101 | 3631.88 | 3691.7 | -0.1 | 0.8 | 25.6 | 3685.2 | 6.4 |
| 236 | 0001 0100 | 3647.50 | 3707.8 | -0.8 | -0.8 | 16.1 | 3701.1 | 6.7 |



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1981/11/30 15:58:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=5)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 237 | 0001 0011 | 3663.13 | 3716.9 -0.7 -0.7 | 9.0 | 3717.0 -0.1 |
| 238 | 0001 0010 | 3678.75 | 3735.3 0.7 0.0 | 18.4 | 3732.8 2.5 |
| 239 | 0001 0001 | 3694.38 | 3758.3 0.5 0.6 | 23.0 | 3748.7 9.6 |
| 240 | 0001 0000 | 3710.00 | 3774.6 -0.8 0.0 | 16.4 | 3764.5 10.1 |
| 241 | 0000 1111 | 3725.63 | 3777.1 -0.7 -0.7 | 7.5 | 3780.4 -3.2 |
| 242 | 0000 1110 | 3741.25 | 3793.6 -0.1 -0.8 | 16.5 | 3796.2 -2.6 |
| 243 | 0000 1101 | 3756.88 | 3819.1 0.6 0.7 | 25.5 | 3812.1 7.0 |
| 244 | 0000 1100 | 3772.50 | 3827.7 0.7 0.7 | 8.6 | 3828.0 -0.2 |
| 245 | 0000 1011 | 3788.13 | 3844.5 -1.0 0.0 | 16.8 | 3843.8 0.7 |
| 246 | 0000 1010 | 3803.75 | 3861.5 -0.8 -0.8 | 17.0 | 3859.7 1.8 |
| 247 | 0000 1001 | 3819.38 | 3886.1 0.7 0.0 | 24.6 | 3875.5 10.6 |
| 248 | 0000 1000 | 3835.00 | 3897.0 0.7 0.6 | 10.9 | 3891.4 5.6 |
| 249 | 0000 0111 | 3850.63 | 3905.4 -0.1 0.7 | 8.3 | 3907.2 -1.9 |
| 250 | 0000 0110 | 3866.25 | 3923.9 -0.8 -0.6 | 18.5 | 3923.1 0.8 |
| 251 | 0000 0101 | 3881.88 | 3949.2 -0.9 -0.6 | 25.3 | 3939.0 10.3 |
| 252 | 0000 0100 | 3897.50 | 3966.5 0.6 0.1 | 17.2 | 3954.8 11.7 |
| 253 | 0000 0011 | 3913.13 | 3973.1 0.6 0.7 | 6.6 | 3970.7 7.4 |
| 254 | 0000 0010 | 3928.75 | 3994.3 -0.8 -0.0 | 21.2 | 3986.5 7.8 |
| 255 | 0000 0001 | 3944.38 | 4016.0 -1.0 -0.8 | 21.7 | 4002.4 13.6 |



HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 668
1981/11/30 16:04:49 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=4)
S U M M A R Y

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.835X - 43.3MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.346%

OFFSET IS:-43.3MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998630$

ANALOG INPUT DURING DC RESTORE IS:64.5MV

RMS ERROR = 4.764MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 26.8MV | 195 | 15.890MV | 1.8MV | 241 | 5.977MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.6MV | 13 | -0.037MV | -2.8MV | 191 | .646MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 3.7MV | 65 | 0.042MV | -0.9MV | 186 | .681MV |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 669

1981/11/30 16:05:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=6)



REV 2.0 '81

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PRFV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -30.5 | -0.5 | -0.6 | | -27.5 | -3.0 |
| 2 | 1111 1110 | -8.750 | -19.1 | 0.6 | 0.8 | 11.3 | -11.6 | -7.5 |
| 3 | 1111 1101 | 6.875 | 4.7 | 0.6 | 0.7 | 23.9 | 4.2 | 0.5 |
| 4 | 1111 1100 | 22.500 | 18.0 | -0.7 | -0.6 | 13.3 | 20.0 | -2.0 |
| 5 | 1111 1011 | 38.125 | 36.0 | -0.8 | -0.7 | 18.0 | 35.9 | 0.1 |
| 6 | 1111 1010 | 53.750 | 49.2 | 0.6 | 0.0 | 13.2 | 51.7 | -2.5 |
| 7 | 1111 1001 | 69.375 | 71.6 | 0.6 | 0.7 | 22.3 | 67.6 | 4.0 |
| 8 | 1111 1000 | 85.000 | 76.5 | -0.0 | 0.7 | 4.9 | 83.4 | -6.9 |
| 9 | 1111 0111 | 100.625 | 97.7 | -0.8 | -0.7 | 21.2 | 99.7 | -1.5 |
| 10 | 1111 0110 | 116.250 | 111.5 | -0.6 | -0.6 | 13.8 | 115.1 | -3.6 |
| 11 | 1111 0101 | 131.875 | 133.1 | 0.6 | 0.7 | 21.6 | 130.9 | 2.2 |
| 12 | 1111 0100 | 147.500 | 148.6 | 0.5 | 0.6 | 15.5 | 146.7 | 1.9 |
| 13 | 1111 0011 | 163.125 | 161.5 | 1.6 | 2.2 | 12.9 | 162.6 | -1.1 |
| 14 | 1111 0010 | 178.750 | 180.0 | -0.7 | -0.7 | 18.5 | 178.4 | 1.6 |
| 15 | 1111 0001 | 194.375 | 200.0 | -0.1 | -0.6 | 20.0 | 194.2 | 5.7 |
| 16 | 1111 0000 | 210.000 | 209.2 | 0.6 | 0.6 | 9.2 | 210.1 | -0.9 |
| 17 | 1110 1111 | 225.625 | 223.8 | 0.7 | 0.7 | 14.7 | 225.9 | -2.1 |
| 18 | 1110 1110 | 241.250 | 236.9 | -0.7 | -0.6 | 13.0 | 241.7 | -4.9 |
| 19 | 1110 1101 | 256.875 | 260.5 | -0.7 | -0.7 | 23.6 | 257.6 | 2.9 |
| 20 | 1110 1100 | 272.500 | 275.1 | 0.6 | 0.0 | 14.7 | 273.4 | 1.7 |
| 21 | 1110 1011 | 288.125 | 290.3 | 0.6 | 0.6 | 15.1 | 289.2 | 1.0 |
| 22 | 1110 1010 | 303.750 | 304.6 | -0.1 | 0.6 | 14.3 | 305.1 | -0.5 |
| 23 | 1110 1001 | 319.375 | 327.0 | -0.7 | -0.7 | 22.4 | 320.9 | 6.1 |
| 24 | 1110 1000 | 335.000 | 336.2 | -1.6 | -0.6 | 9.2 | 336.8 | -0.5 |
| 25 | 1110 0111 | 350.625 | 351.8 | 0.6 | 0.7 | 15.5 | 352.6 | -0.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 670
1981/11/30 16:05:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=6)

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| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 26 | 1110 0110 | 366.250 | 366.1 0.6 0.6 | 14.3 | 368.4 -2.3 |
| 27 | 1110 0101 | 381.875 | 388.5 -0.7 -0.0 | 22.4 | 384.3 4.3 |
| 28 | 1110 0100 | 397.500 | 407.3 -0.7 -0.6 | 18.7 | 400.1 7.2 |
| 29 | 1110 0011 | 413.125 | 415.9 -0.0 -0.6 | 8.6 | 415.9 -0.0 |
| 30 | 1110 0010 | 428.750 | 434.5 0.6 0.6 | 18.6 | 431.8 2.7 |
| 31 | 1110 0001 | 444.375 | 453.9 0.6 0.7 | 19.4 | 447.6 6.3 |
| 32 | 1110 0000 | 460.000 | 459.6 -0.7 -0.7 | 5.7 | 463.4 -3.9 |
| 33 | 1101 1111 | 475.625 | 479.8 -0.7 -0.6 | 20.2 | 479.3 0.5 |
| 34 | 1101 1110 | 491.250 | 490.7 0.6 -0.0 | 10.9 | 495.1 -4.4 |
| 35 | 1101 1101 | 506.875 | 514.9 0.6 0.7 | 24.2 | 510.9 4.0 |
| 36 | 1101 1100 | 522.500 | 527.7 -0.0 0.6 | 12.8 | 526.8 0.9 |
| 37 | 1101 1011 | 538.125 | 542.9 -0.7 -0.6 | 15.1 | 542.6 0.3 |
| 38 | 1101 1010 | 553.750 | 559.4 -0.7 -0.7 | 16.5 | 558.4 1.0 |
| 39 | 1101 1001 | 569.375 | 581.4 0.5 0.6 | 22.0 | 574.3 7.1 |
| 40 | 1101 1000 | 585.000 | 588.6 0.6 0.7 | 7.2 | 590.1 -1.6 |
| 41 | 1101 0111 | 600.625 | 607.4 -0.7 -0.0 | 18.8 | 606.0 1.5 |
| 42 | 1101 0110 | 616.250 | 620.9 -0.7 -0.7 | 13.4 | 621.8 -0.9 |
| 43 | 1101 0101 | 631.875 | 643.2 -0.0 -0.6 | 22.3 | 637.6 5.6 |
| 44 | 1101 0100 | 647.500 | 658.6 0.6 0.6 | 15.4 | 653.5 5.1 |
| 45 | 1101 0011 | 663.125 | 669.7 0.7 0.6 | 11.1 | 669.3 0.4 |
| 46 | 1101 0010 | 678.750 | 689.1 -0.7 -0.7 | 19.4 | 685.1 3.9 |
| 47 | 1101 0001 | 694.375 | 709.1 -0.7 -0.6 | 20.0 | 701.0 8.1 |
| 48 | 1101 0000 | 710.000 | 721.7 0.6 0.0 | 12.6 | 716.8 4.9 |
| 49 | 1100 1111 | 725.625 | 732.9 0.6 0.7 | 11.2 | 732.6 0.2 |
| 50 | 1100 1110 | 741.250 | 744.8 -0.0 0.6 | 11.9 | 748.5 -3.7 |
| 51 | 1100 1101 | 756.875 | 769.2 -0.6 -0.6 | 24.4 | 764.3 4.9 |

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=6) (AC TEST 527) 10 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 781.3 | -0.6 | -0.6 | 12.1 | 789.1 | 1.2 |
| 53 | 1100 1011 | 788.125 | 795.6 | 0.6 | 0.7 | 14.3 | 796.0 | -0.4 |
| 54 | 1100 1010 | 803.750 | 812.6 | 0.6 | 0.6 | 17.0 | 811.8 | 0.8 |
| 55 | 1100 1001 | 819.375 | 835.1 | -0.6 | 0.0 | 22.5 | 827.6 | 7.4 |
| 56 | 1100 1000 | 835.000 | 847.1 | -0.7 | -0.7 | 12.0 | 843.5 | 3.7 |
| 57 | 1100 0111 | 850.625 | 860.5 | -0.0 | -0.6 | 13.4 | 859.3 | 1.2 |
| 58 | 1100 0110 | 866.250 | 873.6 | 0.7 | 0.6 | 13.1 | 875.2 | -1.6 |
| 59 | 1100 0101 | 881.875 | 895.3 | 0.7 | 0.7 | 21.7 | 891.0 | 4.3 |
| 60 | 1100 0100 | 897.500 | 915.1 | -0.7 | -0.6 | 19.8 | 906.8 | 8.2 |
| 61 | 1100 0011 | 913.125 | 923.0 | -0.7 | -0.7 | 8.0 | 922.7 | 0.4 |
| 62 | 1100 0010 | 928.750 | 941.3 | 0.7 | 0.0 | 18.3 | 938.5 | 2.9 |
| 63 | 1100 0001 | 944.375 | 960.9 | 0.6 | 0.7 | 19.5 | 954.3 | 6.6 |
| 64 | 1100 0000 | 960.000 | 970.8 | 0.0 | 0.7 | 9.9 | 970.2 | 0.6 |
| 65 | 1011 1111 | 975.625 | 982.9 | -0.6 | 3.7 | 12.1 | 986.0 | -3.1 |
| 66 | 1011 1110 | 991.250 | 997.7 | -0.8 | -0.7 | 14.8 | 1001.8 | -4.1 |
| 67 | 1011 1101 | 1006.88 | 1022.0 | 0.7 | 0.7 | 24.3 | 1017.7 | 4.3 |
| 68 | 1011 1100 | 1022.50 | 1034.1 | 0.6 | 0.6 | 12.1 | 1033.5 | 0.6 |
| 69 | 1011 1011 | 1038.13 | 1049.1 | -0.7 | -0.1 | 15.0 | 1049.3 | -0.3 |
| 70 | 1011 1010 | 1053.75 | 1064.9 | -0.7 | -0.7 | 15.8 | 1065.2 | -0.3 |
| 71 | 1011 1001 | 1069.38 | 1088.8 | 0.0 | -0.6 | 23.9 | 1081.0 | 7.8 |
| 72 | 1011 1000 | 1085.00 | 1091.8 | 0.7 | 0.7 | 2.9 | 1096.8 | -5.1 |
| 73 | 1011 0111 | 1100.63 | 1108.8 | 0.0 | 0.7 | 17.1 | 1112.7 | -3.9 |
| 74 | 1011 0110 | 1116.25 | 1126.2 | -0.7 | -0.7 | 17.3 | 1128.5 | -2.4 |
| 75 | 1011 0101 | 1131.88 | 1149.3 | -0.6 | -0.6 | 23.1 | 1144.4 | 4.9 |
| 76 | 1011 0100 | 1147.50 | 1163.4 | 0.5 | -0.1 | 14.1 | 1160.2 | 3.2 |
| 77 | 1011 0011 | 1163.13 | 1175.0 | 0.6 | 0.6 | 11.6 | 1176.0 | -1.1 |
| 78 | 1011 0010 | 1178.75 | 1193.2 | -0.0 | 0.6 | 18.2 | 1191.9 | 1.3 |

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=6)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1215.1 | -0.7 | -0.7 | 21.9 | 1207.7 | 7.4 |
| 80 | 1011 0000 | 1210.00 | 1221.8 | 0.0 | -0.7 | 6.7 | 1223.5 | -1.7 |
| 81 | 1010 1111 | 1225.63 | 1234.4 | 0.6 | 0.6 | 12.5 | 1239.4 | -5.0 |
| 82 | 1010 1110 | 1241.25 | 1249.3 | 0.7 | 0.7 | 15.0 | 1255.2 | -5.9 |
| 83 | 1010 1101 | 1256.88 | 1274.7 | -0.7 | -0.0 | 25.3 | 1271.0 | 3.7 |
| 84 | 1010 1100 | 1272.50 | 1284.6 | -0.6 | -0.6 | 9.9 | 1286.9 | -2.3 |
| 85 | 1010 1011 | 1288.13 | 1300.9 | 0.0 | -0.6 | 16.3 | 1302.7 | -1.8 |
| 86 | 1010 1010 | 1303.75 | 1316.7 | 0.7 | 0.7 | 15.8 | 1318.5 | -1.8 |
| 87 | 1010 1001 | 1319.38 | 1339.9 | 0.0 | 0.7 | 23.2 | 1334.4 | 5.5 |
| 88 | 1010 1000 | 1335.00 | 1349.5 | -0.6 | -0.7 | 9.6 | 1350.2 | -0.7 |
| 89 | 1010 0111 | 1350.63 | 1361.3 | -0.7 | -0.6 | 11.8 | 1366.0 | -4.8 |
| 90 | 1010 0110 | 1366.25 | 1377.6 | 0.6 | -0.0 | 16.3 | 1381.9 | -4.3 |
| 91 | 1010 0101 | 1381.88 | 1400.5 | 0.7 | 0.7 | 22.9 | 1397.7 | 2.8 |
| 92 | 1010 0100 | 1397.50 | 1418.5 | 0.0 | 0.6 | 18.0 | 1413.6 | 5.0 |
| 93 | 1010 0011 | 1413.13 | 1427.2 | -0.6 | -0.7 | 8.7 | 1429.4 | -2.1 |
| 94 | 1010 0010 | 1428.75 | 1446.0 | -0.1 | -0.7 | 18.8 | 1445.2 | 0.8 |
| 95 | 1010 0001 | 1444.38 | 1465.9 | 0.7 | 0.7 | 19.9 | 1461.1 | 4.9 |
| 96 | 1010 0000 | 1460.00 | 1473.6 | 0.6 | 0.7 | 7.7 | 1476.9 | -3.3 |
| 97 | 1001 1111 | 1475.63 | 1487.2 | -0.7 | -0.1 | 13.6 | 1492.7 | -5.5 |
| 98 | 1001 1110 | 1491.25 | 1501.7 | -0.6 | -0.6 | 14.5 | 1508.6 | -6.8 |
| 99 | 1001 1101 | 1506.88 | 1526.8 | -0.1 | -0.7 | 25.1 | 1524.4 | 2.4 |
| 100 | 1001 1100 | 1522.50 | 1533.4 | 0.7 | 0.6 | 6.6 | 1540.2 | -6.8 |
| 101 | 1001 1011 | 1538.13 | 1552.3 | 0.0 | 0.7 | 18.9 | 1556.1 | -3.7 |
| 102 | 1001 1010 | 1553.75 | 1568.7 | -0.7 | -0.7 | 16.3 | 1571.9 | -3.3 |
| 103 | 1001 1001 | 1569.38 | 1592.7 | -0.7 | -0.7 | 24.0 | 1587.7 | 5.0 |
| 104 | 1001 1000 | 1585.00 | 1598.1 | 0.8 | 0.0 | 5.4 | 1603.6 | -5.5 |

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3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=6

PAGE
101
027

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1613.1 | -0.0 | 0.0 | 15.0 | 1619.4 | -6.3 |
| 106 | 1001 0110 | 1616.25 | 1629.2 | -0.0 | 0.9 | 16.0 | 1635.2 | -6.1 |
| 107 | 1001 0101 | 1631.88 | 1653.4 | -0.6 | -0.6 | 24.2 | 1651.1 | 2.3 |
| 108 | 1001 0100 | 1647.50 | 1668.4 | 0.0 | -0.7 | 15.0 | 1666.9 | 1.5 |
| 109 | 1001 0011 | 1663.13 | 1678.8 | 0.6 | 0.6 | 10.4 | 1682.8 | -4.0 |
| 110 | 1001 0010 | 1678.75 | 1696.9 | 0.6 | 0.7 | 18.1 | 1698.6 | -1.6 |
| 111 | 1001 0001 | 1694.38 | 1718.8 | -0.8 | 0.0 | 21.9 | 1714.4 | 4.4 |
| 112 | 1001 0000 | 1710.00 | 1734.8 | -0.8 | -0.7 | 15.9 | 1730.3 | 4.5 |
| 113 | 1000 1111 | 1725.63 | 1738.9 | 0.1 | -0.7 | 4.1 | 1746.1 | -7.2 |
| 114 | 1000 1110 | 1741.25 | 1753.2 | 0.6 | 0.6 | 14.3 | 1761.9 | -8.8 |
| 115 | 1000 1101 | 1756.88 | 1777.9 | 0.0 | 0.7 | 24.7 | 1777.8 | 0.1 |
| 116 | 1000 1100 | 1772.50 | 1789.0 | -0.7 | -0.7 | 11.1 | 1793.6 | -4.6 |
| 117 | 1000 1011 | 1788.13 | 1804.6 | -0.8 | -0.7 | 15.6 | 1809.4 | -4.8 |
| 118 | 1000 1010 | 1803.75 | 1820.4 | 0.6 | 0.0 | 15.8 | 1825.3 | -4.9 |
| 119 | 1000 1001 | 1819.38 | 1843.5 | 0.6 | 0.6 | 23.1 | 1841.1 | 2.4 |
| 120 | 1000 1000 | 1835.00 | 1855.6 | 0.0 | 0.7 | 12.1 | 1856.9 | -1.3 |
| 121 | 1000 0111 | 1850.63 | 1865.1 | -0.6 | -0.6 | 9.4 | 1872.8 | -7.7 |
| 122 | 1000 0110 | 1866.25 | 1881.8 | 0.0 | -0.7 | 16.8 | 1888.6 | -6.8 |
| 123 | 1000 0101 | 1881.88 | 1904.4 | 0.7 | 0.6 | 22.5 | 1904.4 | -0.1 |
| 124 | 1000 0100 | 1897.50 | 1922.6 | 0.6 | 0.6 | 18.3 | 1920.3 | 2.4 |
| 125 | 1000 0011 | 1913.13 | 1930.8 | -0.6 | 0.0 | 8.1 | 1936.1 | -5.3 |
| 126 | 1000 0010 | 1928.75 | 1949.5 | -0.8 | -0.7 | 18.7 | 1952.0 | -2.4 |
| 127 | 1000 0001 | 1944.38 | 1970.0 | 0.1 | -0.6 | 20.5 | 1967.8 | 2.3 |
| 128 | 1000 0000 | 1960.00 | 1986.5 | 0.7 | 0.6 | 16.4 | 1983.6 | 2.9 |
| 129 | 0111 1111 | 1975.63 | 1995.2 | -0.0 | 0.7 | 8.7 | 1999.5 | -4.2 |
| 130 | 0111 1110 | 1991.25 | 2011.8 | -0.8 | -0.8 | 16.6 | 2015.3 | -3.5 |

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=6)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2036.8 | -0.7 | -0.7 | 25.0 | 2031.1 | 5.7 |
| 132 | 0111 1100 | 2022.50 | 2042.8 | 0.7 | -0.0 | 6.0 | 2047.0 | -4.1 |
| 133 | 0111 1011 | 2038.13 | 2061.6 | 0.7 | 0.6 | 18.7 | 2062.8 | -1.2 |
| 134 | 0111 1010 | 2053.75 | 2080.8 | 0.0 | 0.6 | 19.2 | 2078.6 | 2.1 |
| 135 | 0111 1001 | 2069.38 | 2103.3 | -0.7 | -0.7 | 22.5 | 2094.5 | 8.8 |
| 136 | 0111 1000 | 2085.00 | 2107.2 | -0.0 | -0.6 | 3.9 | 2110.3 | -3.1 |
| 137 | 0111 0111 | 2100.63 | 2121.9 | 0.6 | 0.6 | 14.7 | 2126.1 | -4.2 |
| 138 | 0111 0110 | 2116.25 | 2139.4 | 0.6 | 0.6 | 17.5 | 2142.0 | -2.5 |
| 139 | 0111 0101 | 2131.88 | 2163.6 | -0.7 | -0.0 | 24.2 | 2157.8 | 5.8 |
| 140 | 0111 0100 | 2147.50 | 2179.5 | -0.7 | -0.7 | 15.8 | 2173.6 | 5.8 |
| 141 | 0111 0011 | 2163.13 | 2188.8 | 0.0 | -0.7 | 9.3 | 2189.5 | -0.7 |
| 142 | 0111 0010 | 2178.75 | 2211.0 | 0.7 | 0.6 | 22.2 | 2205.3 | 5.6 |
| 143 | 0111 0001 | 2194.38 | 2229.3 | -0.0 | 0.6 | 18.3 | 2221.2 | 8.1 |
| 144 | 0111 0000 | 2210.00 | 2239.3 | -0.7 | -0.7 | 10.0 | 2237.0 | 2.3 |
| 145 | 0110 1111 | 2225.63 | 2247.9 | -0.6 | -0.6 | 8.6 | 2252.8 | -4.9 |
| 146 | 0110 1110 | 2241.25 | 2263.4 | 0.7 | -0.0 | 15.4 | 2268.7 | -5.3 |
| 147 | 0110 1101 | 2256.88 | 2288.2 | 0.7 | 0.6 | 24.9 | 2284.5 | 3.7 |
| 148 | 0110 1100 | 2272.50 | 2297.8 | 0.0 | 0.6 | 9.5 | 2300.3 | -2.6 |
| 149 | 0110 1011 | 2288.13 | 2314.1 | -0.6 | -0.6 | 16.3 | 2316.2 | -2.1 |
| 150 | 0110 1010 | 2303.75 | 2334.7 | -0.1 | -0.7 | 20.6 | 2332.0 | 2.6 |
| 151 | 0110 1001 | 2319.38 | 2354.5 | 0.7 | 0.7 | 19.9 | 2347.8 | 6.7 |
| 152 | 0110 1000 | 2335.00 | 2361.0 | 0.6 | 0.7 | 6.5 | 2363.7 | -2.6 |
| 153 | 0110 0111 | 2350.63 | 2374.4 | -0.7 | -0.1 | 13.4 | 2379.5 | -5.1 |
| 154 | 0110 0110 | 2366.25 | 2392.3 | -0.7 | -0.7 | 17.9 | 2395.3 | -3.0 |
| 155 | 0110 0101 | 2381.88 | 2414.8 | 0.7 | 0.1 | 22.5 | 2411.2 | 3.6 |
| 156 | 0110 0100 | 2397.50 | 2433.8 | 0.6 | 0.6 | 19.0 | 2427.0 | 6.8 |
| 157 | 0110 0011 | 2413.13 | 2439.9 | -0.1 | 0.6 | 6.1 | 2442.8 | -3.0 |

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=6) E 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1:1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 158 | 0110 0010 | 2428.75 | 2460.0 -0.7 -0.6 | 20.1 | 2458.7 1.3 |
| 159 | 0110 0001 | 2444.38 | 2481.5 -0.7 -0.6 | 21.5 | 2474.5 7.0 |
| 160 | 0110 0000 | 2460.00 | 2487.4 0.7 -0.0 | 5.9 | 2490.4 -2.9 |
| 161 | 0101 1111 | 2475.63 | 2499.6 0.7 0.6 | 12.1 | 2506.2 -6.6 |
| 162 | 0101 1110 | 2491.25 | 2515.9 -0.7 0.0 | 16.3 | 2522.0 -6.1 |
| 163 | 0101 1101 | 2506.88 | 2541.4 -0.8 -0.7 | 25.5 | 2537.9 3.5 |
| 164 | 0101 1100 | 2522.50 | 2548.0 -0.0 -0.6 | 6.6 | 2553.7 -5.7 |
| 165 | 0101 1011 | 2538.13 | 2565.7 0.7 0.7 | 17.7 | 2569.5 -3.8 |
| 166 | 0101 1010 | 2553.75 | 2582.1 0.7 0.7 | 16.4 | 2585.4 -3.2 |
| 167 | 0101 1001 | 2569.38 | 2607.7 -0.7 -0.1 | 25.6 | 2601.2 6.5 |
| 168 | 0101 1000 | 2585.00 | 2612.4 -0.7 -0.6 | 4.7 | 2617.0 -4.6 |
| 169 | 0101 0111 | 2600.63 | 2626.1 0.7 0.0 | 13.6 | 2632.9 -6.8 |
| 170 | 0101 0110 | 2616.25 | 2643.7 0.6 0.6 | 17.6 | 2648.7 -5.0 |
| 171 | 0101 0101 | 2631.88 | 2667.4 -0.0 0.6 | 23.7 | 2664.5 2.9 |
| 172 | 0101 0100 | 2647.50 | 2684.2 -0.6 -0.6 | 16.8 | 2680.4 3.9 |
| 173 | 0101 0011 | 2663.13 | 2693.1 -0.8 -0.7 | 8.8 | 2696.2 -3.1 |
| 174 | 0101 0010 | 2678.75 | 2712.2 0.6 3.0 | 19.1 | 2712.0 0.1 |
| 175 | 0101 0001 | 2694.38 | 2733.6 0.7 0.7 | 21.4 | 2727.9 5.7 |
| 176 | 0101 0000 | 2710.00 | 2747.6 -0.7 -0.0 | 14.0 | 2743.7 3.8 |
| 177 | 0100 1111 | 2725.63 | 2752.3 -0.7 -0.7 | 4.8 | 2759.6 -7.3 |
| 178 | 0100 1110 | 2741.25 | 2768.2 0.1 -0.7 | 15.9 | 2775.4 -7.2 |
| 179 | 0100 1101 | 2756.88 | 2792.9 0.6 0.6 | 24.6 | 2791.2 1.6 |
| 180 | 0100 1100 | 2772.50 | 2802.6 0.7 0.7 | 9.8 | 2807.1 -4.4 |
| 181 | 0100 1011 | 2788.13 | 2818.4 -0.7 -0.0 | 15.8 | 2822.9 -4.4 |
| 182 | 0100 1010 | 2803.75 | 2835.7 -0.7 -0.6 | 17.2 | 2838.7 -3.0 |
| 183 | 0100 1001 | 2819.38 | 2859.0 0.7 0.0 | 23.3 | 2854.6 4.5 |

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=6)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2871.5 | 0.8 | 0.9 | 12.5 | 2870.4 | 1.1 |
| 185 | 0100 0111 | 2850.63 | 2878.1 | 0.0 | 0.6 | 6.6 | 2886.2 | -8.1 |
| 186 | 0100 0110 | 2866.25 | 2896.8 | -0.9 | -0.9 | 18.6 | 2902.1 | -5.3 |
| 187 | 0100 0101 | 2881.88 | 2920.2 | -0.6 | -0.6 | 23.5 | 2917.9 | 2.3 |
| 188 | 0100 0100 | 2897.50 | 2939.0 | 0.6 | 0.0 | 18.7 | 2933.7 | 5.2 |
| 189 | 0100 0011 | 2913.13 | 2944.6 | 0.6 | 0.6 | 5.6 | 2949.6 | -5.0 |
| 190 | 0100 0010 | 2928.75 | 2968.3 | -0.2 | 0.2 | 23.7 | 2965.4 | 2.9 |
| 191 | 0100 0001 | 2944.38 | 2986.3 | -2.8 | -0.7 | 18.0 | 2981.2 | 5.1 |
| 192 | 0100 0000 | 2960.00 | 2999.9 | 0.0 | -0.6 | 13.5 | 2997.1 | 2.8 |
| 193 | 0011 1111 | 2975.63 | 3004.4 | 0.7 | 0.7 | 4.6 | 3012.9 | -8.5 |
| 194 | 0011 1110 | 2991.25 | 3019.9 | 0.8 | 0.7 | 15.5 | 3028.8 | -8.8 |
| 195 | 0011 1101 | 3006.88 | 3046.7 | -0.8 | 0.1 | 26.8 | 3044.6 | 7.1 |
| 196 | 0011 1100 | 3022.50 | 3052.2 | -0.7 | -0.7 | 5.5 | 3060.4 | -8.2 |
| 197 | 0011 1011 | 3038.13 | 3070.8 | 0.7 | -0.0 | 18.6 | 3076.3 | -5.4 |
| 198 | 0011 1010 | 3053.75 | 3087.0 | 0.7 | 0.7 | 16.2 | 3092.1 | -5.1 |
| 199 | 0011 1001 | 3069.38 | 3112.7 | -0.1 | 0.6 | 25.7 | 3107.9 | 4.8 |
| 200 | 0011 1000 | 3085.00 | 3117.1 | -0.7 | -0.6 | 4.4 | 3123.8 | -6.7 |
| 201 | 0011 0111 | 3100.63 | 3132.3 | -0.6 | -0.6 | 15.1 | 3139.6 | -7.3 |
| 202 | 0011 0110 | 3116.25 | 3149.0 | 0.7 | 0.0 | 16.7 | 3155.4 | -6.4 |
| 203 | 0011 0101 | 3131.88 | 3173.7 | 0.6 | 0.7 | 24.7 | 3171.3 | 2.4 |
| 204 | 0011 0100 | 3147.50 | 3189.6 | -0.7 | -0.0 | 15.9 | 3187.1 | 2.5 |
| 205 | 0011 0011 | 3163.13 | 3199.0 | -0.6 | -0.7 | 9.4 | 3202.9 | -3.9 |
| 206 | 0011 0010 | 3178.75 | 3218.4 | -0.0 | -0.6 | 19.3 | 3218.8 | -0.4 |
| 207 | 0011 0001 | 3194.38 | 3240.3 | 0.6 | 0.7 | 21.9 | 3234.6 | 5.7 |
| 208 | 0011 0000 | 3210.00 | 3244.9 | 0.8 | 0.7 | 4.6 | 3250.4 | -5.6 |
| 209 | 0010 1111 | 3225.63 | 3258.5 | -0.4 | 0.0 | 13.6 | 3266.3 | -7.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 677
1981/11/30 16:05:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=4)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 210 | 0010 1110 | 3241.25 | 3274.6 -0.8 -0.6 | 16.1 | 3282.1 -7.5 |
| 211 | 0010 1101 | 3256.88 | 3300.0 0.6 -0.0 | 25.4 | 3298.0 2.1 |
| 212 | 0010 1100 | 3272.50 | 3308.4 0.7 0.7 | 8.3 | 3313.8 -5.4 |
| 213 | 0010 1011 | 3288.13 | 3324.7 0.0 0.8 | 16.3 | 3329.6 -5.0 |
| 214 | 0010 1010 | 3303.75 | 3342.4 -0.7 -0.6 | 17.8 | 3345.5 -3.0 |
| 215 | 0010 1001 | 3319.38 | 3367.5 -0.8 -0.6 | 25.1 | 3361.3 6.2 |
| 216 | 0010 1000 | 3335.00 | 3373.2 0.7 0.1 | 5.7 | 3377.1 -3.9 |
| 217 | 0010 0111 | 3350.63 | 3385.7 0.6 0.6 | 12.5 | 3393.0 -7.2 |
| 218 | 0010 0110 | 3366.25 | 3404.0 -0.6 0.0 | 18.2 | 3408.8 -4.8 |
| 219 | 0010 0101 | 3381.88 | 3428.8 -0.7 -0.8 | 24.8 | 3424.6 4.1 |
| 220 | 0010 0100 | 3397.50 | 3447.2 -0.1 -0.8 | 18.4 | 3440.5 6.7 |
| 221 | 0010 0011 | 3413.13 | 3452.7 0.7 0.8 | 5.5 | 3456.3 -3.6 |
| 222 | 0010 0010 | 3428.75 | 3476.4 0.6 0.6 | 23.7 | 3472.1 4.3 |
| 223 | 0010 0001 | 3444.38 | 3495.5 -0.8 0.0 | 19.0 | 3488.0 7.5 |
| 224 | 0010 0000 | 3460.00 | 3506.6 -0.8 -0.7 | 11.1 | 3503.8 2.8 |
| 225 | 0001 1111 | 3475.63 | 3513.3 0.6 0.0 | 6.7 | 3519.7 -6.4 |
| 226 | 0001 1110 | 3491.25 | 3529.0 0.4 0.6 | 15.7 | 3535.5 -6.5 |
| 227 | 0001 1101 | 3506.88 | 3555.3 -0.2 0.8 | 26.3 | 3551.3 4.0 |
| 228 | 0001 1100 | 3522.50 | 3561.7 -0.7 -0.7 | 6.3 | 3567.2 -5.5 |
| 229 | 0001 1011 | 3538.13 | 3580.9 -0.8 -0.6 | 19.2 | 3583.0 -2.1 |
| 230 | 0001 1010 | 3553.75 | 3596.3 0.6 0.0 | 15.4 | 3598.8 -2.5 |
| 231 | 0001 1001 | 3569.38 | 3622.6 0.6 0.7 | 26.2 | 3614.7 7.9 |
| 232 | 0001 1000 | 3585.00 | 3627.6 -0.8 0.0 | 5.0 | 3630.5 -2.9 |
| 233 | 0001 0111 | 3600.63 | 3642.2 -0.7 -0.7 | 14.5 | 3646.3 -4.2 |
| 234 | 0001 0110 | 3616.25 | 3659.7 -0.0 -0.7 | 17.5 | 3662.2 -2.5 |
| 235 | 0001 0101 | 3631.88 | 3684.3 0.6 0.7 | 24.6 | 3678.0 6.3 |
| 236 | 0001 0100 | 3647.50 | 3699.5 0.7 0.7 | 15.3 | 3693.8 5.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 67H

1981/11/30 16:05:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=6) 10:30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------------|-------|------------------------------------|------------------------|------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER UPPER | POINT | | DEVIATION | |
| 237 | 0001 0011 | 3663.13 | 3709.5 | -0.7 | 0.0 | 10.0 | 3709.7 | -0.2 |
| 238 | 0001 0010 | 3678.75 | 3729.1 | -0.8 | -0.5 | 19.6 | 3725.5 | 3.6 |
| 239 | 0001 0001 | 3694.38 | 3748.8 | 0.6 | 0.0 | 19.7 | 3741.3 | 7.5 |
| 240 | 0001 0000 | 3710.00 | 3767.4 | 0.6 | 0.6 | 18.5 | 3757.2 | 10.2 |
| 241 | 0000 1111 | 3725.63 | 3769.2 | -0.0 | 0.7 | 1.8 | 3773.0 | -3.8 |
| 242 | 0000 1110 | 3741.25 | 3785.7 | -0.8 | -0.7 | 16.5 | 3788.9 | -3.1 |
| 243 | 0000 1101 | 3756.88 | 3812.2 | -0.7 | -0.6 | 26.5 | 3804.7 | 7.5 |
| 244 | 0000 1100 | 3772.50 | 3820.3 | 0.6 | 0.7 | 8.1 | 3820.5 | -0.2 |
| 245 | 0000 1011 | 3788.13 | 3836.3 | 0.6 | 0.7 | 16.0 | 3836.4 | -0.1 |
| 246 | 0000 1010 | 3803.75 | 3854.2 | -0.8 | -0.0 | 17.9 | 3852.2 | 2.0 |
| 247 | 0000 1001 | 3819.38 | 3879.6 | -0.8 | -0.7 | 25.4 | 3868.0 | 11.5 |
| 248 | 0000 1000 | 3835.00 | 3893.2 | -0.1 | -0.6 | 13.6 | 3883.9 | 9.3 |
| 249 | 0000 0111 | 3850.63 | 3897.9 | 0.7 | 0.7 | 4.7 | 3899.7 | -1.8 |
| 250 | 0000 0110 | 3866.25 | 3915.7 | 0.5 | 0.6 | 17.8 | 3915.5 | 0.2 |
| 251 | 0000 0101 | 3881.88 | 3941.6 | -0.9 | -0.7 | 25.9 | 3931.4 | 10.2 |
| 252 | 0000 0100 | 3897.50 | 3960.3 | -0.7 | -0.6 | 18.6 | 3947.2 | 13.0 |
| 253 | 0000 0011 | 3913.13 | 3965.4 | 0.7 | -0.1 | 5.1 | 3963.0 | 2.3 |
| 254 | 0000 0010 | 3928.75 | 3986.5 | -2.2 | 0.6 | 21.2 | 3978.9 | 7.7 |
| 255 | 0000 0001 | 3944.38 | 4005.7 | -0.2 | 0.6 | 19.1 | 3994.7 | 11.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 679
1981/11/30 16:11:25 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=7)
S U M M A R Y



NOV 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.862X - 40.7MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.519%

OFFSET IS: -40.7MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998310$

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.496MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.8MV | 229 | 15.915MV | 3.0MV | 241 | 5.607MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.0MV | 124 | -0.238MV | -7.4MV | 245 | 1.110MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 5.9MV | 249 | 0.072MV | -1.0MV | 178 | .931MV |

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 680
 1981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=7)

HAC
TST
527

REV 30 88

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|--|------------------------------------|------------------------|--|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION | |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -27.8 | -1.5 | -0.7 | | -24.8 | -3.0 |
| 2 | 1111 1110 | -8.750 | -15.6 | -0.8 | -0.8 | 12.3 | -9.0 | -6.6 |
| 3 | 1111 1101 | 6.875 | 7.4 | 0.7 | 0.0 | 23.0 | 6.9 | 0.5 |
| 4 | 1111 1100 | 22.500 | 19.7 | 0.8 | 0.7 | 12.3 | 22.8 | -3.1 |
| 5 | 1111 1011 | 38.125 | 38.3 | -0.8 | 0.0 | 18.6 | 38.6 | -0.3 |
| 6 | 1111 1010 | 53.750 | 52.3 | -0.8 | -0.8 | 13.9 | 54.5 | -2.2 |
| 7 | 1111 1001 | 69.375 | 74.7 | -0.1 | -0.8 | 22.4 | 70.3 | 4.3 |
| 8 | 1111 1000 | 85.000 | 79.4 | 0.7 | 0.7 | 4.7 | 86.2 | -6.8 |
| 9 | 1111 0111 | 100.625 | 99.5 | 0.8 | 0.8 | 20.1 | 102.1 | -2.6 |
| 10 | 1111 0110 | 116.250 | 114.7 | -0.9 | -0.0 | 15.2 | 117.9 | -3.2 |
| 11 | 1111 0101 | 131.875 | 136.3 | -0.9 | -0.8 | 21.6 | 133.8 | 2.5 |
| 12 | 1111 0100 | 147.500 | 151.2 | 0.8 | -0.1 | 14.8 | 149.7 | 1.5 |
| 13 | 1111 0011 | 163.125 | 165.5 | 0.8 | 0.8 | 14.3 | 165.5 | -0.0 |
| 14 | 1111 0010 | 178.750 | 181.9 | -0.1 | 0.8 | 16.4 | 181.4 | 0.5 |
| 15 | 1111 0001 | 194.375 | 202.7 | -0.9 | -0.8 | 20.8 | 197.2 | 5.5 |
| 16 | 1111 0000 | 210.000 | 211.7 | -0.8 | -0.8 | 9.0 | 213.1 | -1.4 |
| 17 | 1110 1111 | 225.625 | 226.8 | 0.7 | 0.0 | 15.0 | 229.0 | -2.2 |
| 18 | 1110 1110 | 241.250 | 239.4 | 0.7 | 0.7 | 12.6 | 244.8 | -5.4 |
| 19 | 1110 1101 | 256.875 | 263.6 | -0.9 | -0.0 | 24.2 | 260.7 | 2.9 |
| 20 | 1110 1100 | 272.500 | 278.8 | -0.8 | -0.8 | 15.2 | 276.6 | 2.2 |
| 21 | 1110 1011 | 288.125 | 293.7 | -0.1 | -0.8 | 14.9 | 292.4 | 1.3 |
| 22 | 1110 1010 | 303.750 | 307.2 | 0.8 | 0.8 | 13.5 | 308.3 | -1.0 |
| 23 | 1110 1001 | 319.375 | 329.1 | 0.8 | 0.8 | 21.8 | 324.1 | 4.9 |
| 24 | 1110 1000 | 335.000 | 340.0 | -0.8 | -0.1 | 10.9 | 340.0 | -0.0 |
| 25 | 1110 0111 | 350.625 | 355.5 | -0.8 | -0.8 | 15.5 | 355.9 | -0.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 681

1981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=7)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 369.5 | 0.7 | 0.0 | 13.9 | 371.7 | -2.2 |
| 27 | 1110 0101 | 381.875 | 390.7 | 0.7 | 0.8 | 21.2 | 387.6 | 3.1 |
| 28 | 1110 0100 | 397.500 | 409.4 | -0.1 | 0.8 | 18.7 | 403.7 | 6.0 |
| 29 | 1110 0011 | 413.125 | 421.4 | -0.9 | -0.9 | 11.9 | 419.3 | 2.0 |
| 30 | 1110 0010 | 428.750 | 438.2 | -0.8 | -0.8 | 16.7 | 435.2 | 3.1 |
| 31 | 1110 0001 | 444.375 | 457.0 | 0.7 | 0.0 | 18.7 | 451.0 | 5.9 |
| 32 | 1110 0000 | 460.000 | 461.3 | 0.7 | 0.7 | 4.4 | 466.9 | -5.6 |
| 33 | 1101 1111 | 475.625 | 483.2 | -0.9 | 0.0 | 21.9 | 482.8 | 0.5 |
| 34 | 1101 1110 | 491.250 | 495.0 | -0.8 | -0.8 | 11.8 | 498.6 | -3.6 |
| 35 | 1101 1101 | 506.875 | 519.1 | -0.1 | -0.8 | 24.0 | 514.5 | 4.6 |
| 36 | 1101 1100 | 522.500 | 530.8 | 0.8 | 0.8 | 11.7 | 530.4 | 0.5 |
| 37 | 1101 1011 | 538.125 | 548.5 | 0.8 | 0.9 | 17.6 | 546.2 | 2.3 |
| 38 | 1101 1010 | 553.750 | 562.8 | -0.9 | -0.0 | 14.3 | 562.1 | 0.7 |
| 39 | 1101 1001 | 569.375 | 585.3 | -0.9 | -0.8 | 22.6 | 577.9 | 7.4 |
| 40 | 1101 1000 | 585.000 | 592.2 | 0.6 | -0.0 | 6.8 | 593.8 | -1.6 |
| 41 | 1101 0111 | 600.625 | 610.2 | 0.7 | 0.8 | 18.1 | 609.7 | 0.6 |
| 42 | 1101 0110 | 616.250 | 624.0 | 0.0 | 0.8 | 13.8 | 625.5 | -1.5 |
| 43 | 1101 0101 | 631.875 | 646.6 | -0.9 | -0.8 | 22.6 | 641.4 | 5.2 |
| 44 | 1101 0100 | 647.500 | 662.7 | -0.8 | -0.8 | 16.0 | 657.2 | 5.4 |
| 45 | 1101 0011 | 663.125 | 673.8 | 0.8 | 0.0 | 11.1 | 673.1 | 0.7 |
| 46 | 1101 0010 | 678.750 | 691.6 | 0.8 | 0.8 | 17.8 | 689.0 | 2.7 |
| 47 | 1101 0001 | 694.375 | 712.7 | -0.8 | 0.0 | 21.1 | 704.8 | 7.9 |
| 48 | 1101 0000 | 710.000 | 724.9 | -0.7 | -0.7 | 12.2 | 720.7 | 4.2 |
| 49 | 1100 1111 | 725.625 | 737.4 | 0.0 | -0.8 | 12.4 | 736.6 | 0.8 |
| 50 | 1100 1110 | 741.250 | 748.7 | 0.8 | 0.7 | 11.4 | 752.4 | -3.7 |
| 51 | 1100 1101 | 756.875 | 772.2 | 0.7 | 0.7 | 23.4 | 763.3 | 3.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3

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1981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=7)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 777.500 | 785.2 | -0.8 | -0.1 | 13.0 | 784.1 | 1.1 |
| 53 | 1100 1011 | 788.175 | 800.5 | -0.8 | 1.8 | 15.3 | 800.0 | 0.5 |
| 54 | 1100 1010 | 803.750 | 816.1 | 0.8 | -0.0 | 15.6 | 815.9 | 0.2 |
| 55 | 1100 1001 | 819.375 | 838.1 | 0.7 | 0.9 | 27.0 | 831.7 | 6.3 |
| 56 | 1100 1000 | 835.000 | 850.7 | -0.0 | 0.7 | 12.7 | 847.6 | 3.1 |
| 57 | 1100 0111 | 850.625 | 864.5 | -0.8 | -0.8 | 13.8 | 863.5 | 1.1 |
| 58 | 1100 0110 | 866.250 | 878.6 | -0.8 | -0.9 | 14.0 | 879.3 | -0.7 |
| 59 | 1100 0101 | 881.875 | 898.9 | 0.8 | 0.0 | 20.3 | 895.2 | 3.7 |
| 60 | 1100 0100 | 897.500 | 919.1 | 0.8 | 0.8 | 19.1 | 911.0 | 7.0 |
| 61 | 1100 0011 | 913.125 | 927.6 | -0.8 | -0.1 | 9.5 | 926.9 | 0.7 |
| 62 | 1100 0010 | 928.750 | 945.9 | -0.8 | -0.8 | 18.3 | 942.8 | 3.2 |
| 63 | 1100 0001 | 944.375 | 965.6 | 0.0 | -0.8 | 19.7 | 958.6 | 7.0 |
| 64 | 1100 0000 | 960.000 | 973.5 | 0.7 | 0.7 | 7.9 | 974.5 | -1.0 |
| 65 | 1011 1111 | 975.625 | 990.7 | 0.8 | 0.8 | 17.2 | 990.4 | 0.3 |
| 66 | 1011 1110 | 991.250 | 1002.2 | -0.8 | -0.0 | 11.5 | 1006.2 | -4.0 |
| 67 | 1011 1101 | 1006.88 | 1026.8 | -0.8 | -0.8 | 24.6 | 1022.1 | 4.7 |
| 68 | 1011 1100 | 1022.50 | 1037.7 | 0.8 | -0.0 | 10.9 | 1037.9 | -0.3 |
| 69 | 1011 1011 | 1038.13 | 1055.8 | 0.8 | 0.7 | 18.1 | 1053.8 | 7.0 |
| 70 | 1011 1010 | 1052.75 | 1069.8 | -0.1 | 0.8 | 14.0 | 1069.7 | 0.1 |
| 71 | 1011 1001 | 1069.38 | 1093.0 | -0.8 | -0.8 | 23.7 | 1085.5 | 7.5 |
| 72 | 1011 1000 | 1085.00 | 1096.9 | -0.7 | -0.8 | 3.8 | 1101.4 | -4.5 |
| 73 | 1011 0111 | 1100.63 | 1117.5 | -3.5 | -0.1 | 20.6 | 1117.3 | 0.3 |
| 74 | 1011 0110 | 1116.25 | 1130.1 | 0.8 | 0.9 | 12.5 | 1133.1 | -3.1 |
| 75 | 1011 0101 | 1131.88 | 1153.9 | -0.8 | 0.0 | 23.8 | 1149.0 | 4.9 |
| 76 | 1011 0100 | 1147.50 | 1168.2 | -0.8 | -0.8 | 14.4 | 1164.8 | 3.4 |
| 77 | 1011 0011 | 1163.13 | 1183.2 | 0.0 | -0.8 | 15.0 | 1180.7 | 2.5 |
| 78 | 1011 0010 | 1178.75 | 1197.2 | 0.8 | 0.8 | 14.0 | 1194.5 | 0.7 |

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1981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=7)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1218.7 | 0.8 | 0.8 | 21.4 | 1212.4 | 6.2 |
| 80 | 1011 0000 | 1210.00 | 1230.8 | -0.8 | 0.0 | 12.1 | 1228.3 | 2.5 |
| 81 | 1010 1111 | 1225.63 | 1243.9 | -0.8 | -0.0 | 13.1 | 1244.2 | -0.3 |
| 82 | 1010 1110 | 1241.25 | 1254.1 | 0.8 | -0.0 | 10.2 | 1260.0 | -5.9 |
| 83 | 1010 1101 | 1256.88 | 1278.3 | 0.8 | 0.8 | 24.2 | 1275.9 | 2.5 |
| 84 | 1010 1100 | 1272.50 | 1288.2 | 0.1 | 0.7 | 9.9 | 1291.7 | -3.5 |
| 85 | 1010 1011 | 1288.13 | 1309.1 | -0.8 | -0.8 | 20.9 | 1307.6 | 1.5 |
| 86 | 1010 1010 | 1303.75 | 1321.7 | -0.7 | -0.8 | 12.6 | 1323.5 | -1.8 |
| 87 | 1010 1001 | 1319.38 | 1344.3 | 0.8 | -0.0 | 22.6 | 1339.3 | 5.0 |
| 88 | 1010 1000 | 1335.00 | 1353.2 | 0.7 | 0.8 | 8.9 | 1355.2 | -2.0 |
| 89 | 1010 0111 | 1350.63 | 1366.1 | -0.8 | 4.3 | 12.9 | 1371.1 | -5.0 |
| 90 | 1010 0110 | 1366.25 | 1383.5 | -0.9 | -0.9 | 17.4 | 1386.9 | -3.5 |
| 91 | 1010 0101 | 1381.88 | 1405.9 | -0.1 | -0.9 | 22.5 | 1402.8 | 3.1 |
| 92 | 1010 0100 | 1397.50 | 1422.7 | 0.7 | 0.7 | 16.8 | 1418.6 | 4.1 |
| 93 | 1010 0011 | 1413.13 | 1434.7 | 0.8 | 0.7 | 12.0 | 1434.5 | 0.2 |
| 94 | 1010 0010 | 1428.75 | 1450.6 | -0.9 | 0.0 | 15.9 | 1450.4 | -0.3 |
| 95 | 1010 0001 | 1444.38 | 1471.4 | -0.9 | -0.8 | 20.8 | 1466.2 | 5.2 |
| 96 | 1010 0000 | 1460.00 | 1477.0 | 0.7 | 0.0 | 5.5 | 1482.1 | -5.1 |
| 97 | 1001 1111 | 1475.63 | 1491.1 | 0.8 | 0.8 | 14.2 | 1497.9 | -6.8 |
| 98 | 1001 1110 | 1491.25 | 1506.1 | 0.0 | 0.8 | 15.0 | 1513.8 | -7.7 |
| 99 | 1001 1101 | 1506.88 | 1531.8 | -0.8 | -0.8 | 25.7 | 1529.7 | 2.1 |
| 100 | 1001 1100 | 1522.50 | 1538.8 | -0.8 | -0.8 | 6.9 | 1545.5 | -6.8 |
| 101 | 1001 1011 | 1538.13 | 1557.5 | 0.8 | 0.8 | 18.7 | 1561.4 | -3.9 |
| 102 | 1001 1010 | 1553.75 | 1574.5 | -0.7 | -0.7 | 17.0 | 1577.3 | -2.8 |
| 103 | 1001 1001 | 1569.38 | 1597.6 | -0.9 | -0.0 | 23.1 | 1593.1 | 4.5 |
| 104 | 1001 1000 | 1585.00 | 1603.9 | -0.8 | -0.8 | 6.2 | 1609.0 | -5.1 |

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IS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FL1. S/N 3 PAGE 684

981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=7)



NOV 30 '81

| THRESHOLD
NUMBER | A/D
OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|----------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1622.8 | -4.2 | -0.8 | 18.9 | 1624.8 | -2.0 |
| 106 | 1001 0110 | 1616.25 | 1634.7 | 0.8 | 0.8 | 11.8 | 1640.7 | -6.0 |
| 107 | 1001 0101 | 1631.88 | 1657.5 | 0.9 | 0.9 | 22.8 | 1656.6 | 0.9 |
| 108 | 1001 0100 | 1647.50 | 1673.4 | -0.9 | -0.9 | 16.0 | 1672.4 | 1.0 |
| 109 | 1001 0011 | 1663.13 | 1688.3 | -0.8 | -0.8 | 14.8 | 1688.3 | -0.0 |
| 110 | 1001 0010 | 1678.75 | 1701.7 | 0.9 | 0.0 | 13.4 | 1704.2 | -2.5 |
| 111 | 1001 0001 | 1694.38 | 1723.2 | 0.8 | 0.8 | 21.5 | 1720.0 | 3.1 |
| 112 | 1001 0000 | 1710.00 | 1738.2 | -0.0 | 0.8 | 15.0 | 1735.9 | 2.3 |
| 113 | 1000 1111 | 1725.63 | 1744.1 | -0.8 | -0.8 | 5.8 | 1751.7 | -7.7 |
| 114 | 1000 1110 | 1741.25 | 1759.4 | -0.8 | -0.9 | 15.4 | 1767.6 | -8.2 |
| 115 | 1000 1101 | 1756.88 | 1783.1 | 0.9 | 0.8 | 23.6 | 1783.5 | -0.4 |
| 116 | 1000 1100 | 1772.50 | 1793.3 | 0.8 | 0.8 | 10.2 | 1799.3 | -6.0 |
| 117 | 1000 1011 | 1788.13 | 1810.2 | -0.8 | 0.0 | 16.9 | 1815.2 | -5.0 |
| 118 | 1000 1010 | 1803.75 | 1826.0 | -0.8 | -0.9 | 15.8 | 1831.1 | -5.0 |
| 119 | 1000 1001 | 1819.38 | 1849.5 | -0.0 | -0.8 | 23.4 | 1846.9 | 2.5 |
| 120 | 1000 1000 | 1835.00 | 1860.1 | 0.7 | 0.7 | 10.6 | 1862.8 | -2.7 |
| 121 | 1000 0111 | 1850.63 | 1873.9 | -3.3 | 0.8 | 13.7 | 1878.6 | -4.8 |
| 122 | 1000 0110 | 1866.25 | 1887.7 | -0.8 | -0.8 | 13.8 | 1894.5 | -6.8 |
| 123 | 1000 0101 | 1881.88 | 1910.0 | -0.7 | -0.7 | 22.3 | 1910.4 | -0.4 |
| 124 | 1000 0100 | 1897.50 | 1927.5 | 1.0 | 0.0 | 17.5 | 1926.2 | 1.3 |
| 125 | 1000 0011 | 1913.13 | 1939.5 | -2.7 | 0.8 | 11.9 | 1942.1 | -2.6 |
| 126 | 1000 0010 | 1928.75 | 1954.0 | 0.1 | 0.9 | 14.5 | 1958.0 | -4.0 |
| 127 | 1000 0001 | 1944.38 | 1975.7 | -0.8 | -0.8 | 21.7 | 1973.8 | 1.9 |
| 128 | 1000 0000 | 1960.00 | 1993.2 | -0.6 | -0.6 | 17.5 | 1989.7 | 3.5 |
| 129 | 0111 1111 | 1975.63 | 2000.8 | 0.8 | 0.8 | 7.6 | 2005.5 | -4.7 |
| 130 | 0111 1110 | 1991.25 | 2017.0 | 0.8 | 0.8 | 16.2 | 2021.4 | -4.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 685

1981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=7) > W 30 81



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2042.5 | -0.8 | -0.0 | 25.4 | 2037.3 | 5.2 |
| 132 | 0111 1100 | 2022.50 | 2048.6 | -0.6 | 5.7 | 6.1 | 2053.1 | -4.6 |
| 133 | 0111 1011 | 2038.13 | 2071.4 | -3.1 | -0.8 | 22.8 | 2069.0 | 2.4 |
| 134 | 0111 1010 | 2053.75 | 2086.3 | 0.7 | 0.8 | 14.9 | 2084.9 | 1.5 |
| 135 | 0111 1001 | 2069.38 | 2108.3 | 0.8 | 0.8 | 22.0 | 2100.7 | 7.6 |
| 136 | 0111 1000 | 2085.00 | 2112.5 | -0.8 | -0.7 | 4.2 | 2116.6 | -4.1 |
| 137 | 0111 0111 | 2100.63 | 2128.5 | -0.8 | -0.8 | 16.0 | 2132.4 | -3.9 |
| 138 | 0111 0110 | 2116.25 | 2145.4 | 0.9 | 0.0 | 16.9 | 2148.3 | -2.9 |
| 139 | 0111 0101 | 2131.88 | 2168.9 | 0.8 | 0.8 | 23.5 | 2164.2 | 4.7 |
| 140 | 0111 0100 | 2147.50 | 2184.6 | 0.0 | 0.8 | 15.7 | 2180.0 | 4.5 |
| 141 | 0111 0011 | 2163.13 | 2198.3 | -0.8 | -0.9 | 13.7 | 2195.9 | 2.4 |
| 142 | 0111 0010 | 2178.75 | 2217.5 | -0.7 | -0.7 | 19.2 | 2211.8 | 5.8 |
| 143 | 0111 0001 | 2194.38 | 2232.5 | 0.8 | 0.8 | 15.0 | 2227.6 | 4.9 |
| 144 | 0111 0000 | 2210.00 | 2243.5 | 0.8 | 0.8 | 11.0 | 2243.5 | 0.1 |
| 145 | 0110 1111 | 2225.63 | 2254.0 | -0.8 | -0.0 | 10.5 | 2259.3 | -5.3 |
| 146 | 0110 1110 | 2241.25 | 2270.6 | -0.8 | -0.8 | 16.6 | 2275.2 | -4.6 |
| 147 | 0110 1101 | 2256.88 | 2294.9 | 0.1 | -0.8 | 24.2 | 2291.1 | 3.8 |
| 148 | 0110 1100 | 2272.50 | 2303.5 | 0.8 | 0.8 | 8.6 | 2306.9 | -3.4 |
| 149 | 0110 1011 | 2288.13 | 2319.7 | 0.8 | 0.8 | 16.1 | 2322.8 | -3.1 |
| 150 | 0110 1010 | 2303.75 | 2340.8 | -0.8 | -0.8 | 21.1 | 2338.6 | 2.1 |
| 151 | 0110 1001 | 2319.38 | 2361.3 | -0.8 | -0.8 | 20.6 | 2354.5 | 6.8 |
| 152 | 0110 1000 | 2335.00 | 2367.5 | 0.9 | -0.0 | 6.2 | 2370.4 | -2.9 |
| 153 | 0110 0111 | 2350.63 | 2380.0 | 0.8 | 0.7 | 12.4 | 2386.2 | -6.3 |
| 154 | 0110 0110 | 2366.25 | 2398.2 | -0.1 | 0.7 | 18.2 | 2402.1 | -3.9 |
| 155 | 0110 0101 | 2381.88 | 2422.0 | -0.8 | -0.8 | 23.7 | 2418.0 | 4.0 |
| 156 | 0110 0100 | 2397.50 | 2440.2 | -0.9 | -0.8 | 18.2 | 2433.8 | 6.4 |
| 157 | 0110 0011 | 2413.13 | 2449.7 | 0.8 | 0.9 | 9.5 | 2449.7 | 0.1 |

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6-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 686

'81/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=7)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2465.2 | 0.8 | 0.9 | 15.5 | 2465.5 | -0.3 |
| 159 | 0110 0001 | 2444.38 | 2485.6 | -0.9 | 0.0 | 20.4 | 2481.4 | 4.2 |
| 160 | 0110 0000 | 2460.00 | 2494.1 | -0.7 | -0.8 | 8.5 | 2497.3 | -3.2 |
| 161 | 0101 1111 | 2475.63 | 2506.6 | -0.0 | -0.7 | 12.5 | 2513.1 | -6.5 |
| 162 | 0101 1110 | 2491.25 | 2522.1 | 0.7 | 0.7 | 15.5 | 2529.0 | -6.9 |
| 163 | 0101 1101 | 2506.88 | 2547.0 | 0.8 | 0.8 | 24.8 | 2544.9 | 2.1 |
| 164 | 0101 1100 | 2522.50 | 2554.0 | -0.7 | -0.7 | 7.0 | 2560.7 | -6.7 |
| 165 | 0101 1011 | 2538.13 | 2573.1 | -0.8 | 2.6 | 19.1 | 2576.6 | -3.5 |
| 166 | 0101 1010 | 2553.75 | 2591.3 | 0.8 | 0.1 | 18.2 | 2592.4 | -1.1 |
| 167 | 0101 1001 | 2569.38 | 2613.4 | 0.8 | 0.8 | 22.1 | 2608.3 | 5.1 |
| 168 | 0101 1000 | 2585.00 | 2618.2 | 0.0 | 0.7 | 4.8 | 2624.2 | -5.9 |
| 169 | 0101 0111 | 2600.63 | 2633.5 | -0.9 | -0.8 | 15.3 | 2640.0 | -6.5 |
| 170 | 0101 0110 | 2616.25 | 2651.4 | -0.8 | -0.9 | 17.9 | 2655.9 | -4.5 |
| 171 | 0101 0101 | 2631.88 | 2673.9 | 1.0 | 1.0 | 22.5 | 2671.8 | 2.2 |
| 172 | 0101 0100 | 2647.50 | 2689.9 | 0.8 | 0.8 | 16.0 | 2687.6 | 2.3 |
| 173 | 0101 0011 | 2663.13 | 2703.5 | -0.8 | 0.0 | 13.6 | 2703.5 | 0.1 |
| 174 | 0101 0010 | 2678.75 | 2717.8 | -0.8 | -0.8 | 14.2 | 2719.3 | -1.6 |
| 175 | 0101 0001 | 2694.38 | 2738.6 | 0.0 | -0.7 | 20.9 | 2735.2 | 3.4 |
| 176 | 0101 0000 | 2710.00 | 2752.5 | 0.7 | 0.7 | 13.8 | 2751.1 | 1.4 |
| 177 | 0100 1111 | 2725.63 | 2758.6 | 0.6 | 0.6 | 6.1 | 2766.9 | -8.3 |
| 178 | 0100 1110 | 2741.25 | 2775.8 | -1.1 | -1.0 | 17.1 | 2782.8 | -7.0 |
| 179 | 0100 1101 | 2756.88 | 2800.4 | -0.9 | -0.8 | 24.6 | 2798.7 | 1.7 |
| 180 | 0100 1100 | 2772.50 | 2809.4 | 0.7 | 0.0 | 9.0 | 2814.5 | -5.1 |
| 181 | 0100 1011 | 2788.13 | 2828.2 | -2.6 | 0.8 | 18.8 | 2830.4 | -2.2 |
| 182 | 0100 1010 | 2803.75 | 2845.1 | -0.1 | 0.8 | 16.9 | 2846.2 | -1.1 |
| 183 | 0100 1001 | 2819.38 | 2866.6 | -0.9 | -0.8 | 21.5 | 2862.1 | 4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 687
 1981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=7)



11 30 81

| THRESHOLD
NUMPR | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2876.5 | -0.9 | -0.8 | 9.9 | 2878.0 | -1.5 |
| 185 | 0100 0111 | 2850.63 | 2885.2 | 0.8 | 0.8 | 8.7 | 2893.8 | -8.6 |
| 186 | 0100 0110 | 2866.25 | 2903.3 | 0.5 | 0.6 | 18.1 | 2909.7 | -6.4 |
| 187 | 0100 0101 | 2881.88 | 2927.4 | -0.9 | 0.0 | 24.2 | 2925.6 | 1.9 |
| 188 | 0100 0100 | 2897.50 | 2946.2 | -0.9 | -0.9 | 18.7 | 2941.4 | 4.8 |
| 189 | 0100 0011 | 2913.13 | 2956.3 | -2.0 | -0.9 | 10.1 | 2957.3 | -1.0 |
| 190 | 0100 0010 | 2928.75 | 2970.2 | 0.8 | 0.7 | 14.0 | 2973.1 | -2.9 |
| 191 | 0100 0001 | 2944.38 | 2990.6 | 0.8 | 0.8 | 20.3 | 2989.0 | 1.6 |
| 192 | 0100 0000 | 2960.00 | 3005.8 | -0.7 | -0.7 | 15.2 | 3004.9 | 0.9 |
| 193 | 0011 1111 | 2975.63 | 3012.3 | -0.8 | -0.8 | 6.5 | 3020.7 | -8.4 |
| 194 | 0011 1110 | 2991.25 | 3027.4 | 0.8 | -0.0 | 15.1 | 3036.6 | -9.2 |
| 195 | 0011 1101 | 3006.88 | 3053.3 | 0.8 | 0.8 | 25.9 | 3052.5 | 0.8 |
| 196 | 0011 1100 | 3022.50 | 3058.1 | -0.1 | 0.8 | 4.8 | 3068.3 | -10.2 |
| 197 | 0011 1011 | 3038.13 | 3082.4 | -0.9 | -0.9 | 24.3 | 3084.2 | -1.7 |
| 198 | 0011 1010 | 3053.75 | 3097.4 | -0.3 | -0.3 | 14.9 | 3100.0 | -2.6 |
| 199 | 0011 1001 | 3069.38 | 3120.0 | 0.7 | 0.8 | 22.6 | 3115.9 | 4.1 |
| 200 | 0011 1000 | 3085.00 | 3123.4 | 0.7 | 0.7 | 3.4 | 3131.8 | -8.3 |
| 201 | 0011 0111 | 3100.63 | 3139.7 | -0.8 | 0.0 | 16.3 | 3147.6 | -7.9 |
| 202 | 0011 0110 | 3116.25 | 3157.7 | -0.9 | -0.9 | 18.0 | 3163.5 | -5.8 |
| 203 | 0011 0101 | 3131.88 | 3181.7 | -0.1 | -0.8 | 24.0 | 3179.3 | 2.4 |
| 204 | 0011 0100 | 3147.50 | 3196.3 | 0.7 | 0.8 | 14.6 | 3195.2 | 1.1 |
| 205 | 0011 0011 | 3163.13 | 3209.6 | -2.8 | 0.6 | 13.2 | 3211.1 | -1.5 |
| 206 | 0011 0010 | 3178.75 | 3229.4 | -0.9 | -0.9 | 19.8 | 3226.9 | 2.4 |
| 207 | 0011 0001 | 3194.38 | 3248.6 | -0.9 | -0.9 | 19.2 | 3242.8 | 5.8 |
| 208 | 0011 0000 | 3210.00 | 3258.6 | 0.8 | 0.0 | 10.0 | 3258.7 | -0.1 |
| 209 | 0010 1111 | 3225.63 | 3265.7 | 0.7 | 0.8 | 7.2 | 3274.5 | -8.8 |

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5-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 608

781/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=7) 15300

| RESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|-------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3282.0 | -0.0 | 0.8 | 16.3 | 3290.4 | -8.4 |
| 211 | 0010 1101 | 3256.88 | 3308.6 | -1.0 | -0.9 | 26.6 | 3306.2 | 2.4 |
| 212 | 0010 1100 | 3272.50 | 3316.5 | -0.8 | -0.8 | 7.8 | 3322.1 | -5.6 |
| 213 | 0010 1011 | 3288.13 | 3336.1 | -2.8 | 0.8 | 19.6 | 3338.0 | -1.9 |
| 214 | 0010 1010 | 3303.75 | 3352.9 | 0.6 | 0.8 | 16.8 | 3353.8 | -0.9 |
| 215 | 0010 1001 | 3319.38 | 3375.4 | -0.8 | 0.0 | 22.5 | 3369.7 | 5.7 |
| 216 | 0010 1000 | 3335.00 | 3381.6 | -0.8 | -0.9 | 6.3 | 3385.6 | -3.9 |
| 217 | 0010 0111 | 3350.63 | 3401.1 | -6.7 | -0.8 | 19.5 | 3401.4 | -0.3 |
| 218 | 0010 0110 | 3366.25 | 3411.7 | 0.9 | 0.8 | 10.6 | 3417.3 | -5.5 |
| 219 | 0010 0101 | 3381.88 | 3435.8 | 0.4 | 0.8 | 24.1 | 3433.1 | 2.7 |
| 220 | 0010 0100 | 3397.50 | 3455.0 | -0.8 | -0.8 | 19.1 | 3449.0 | 6.0 |
| 221 | 0010 0011 | 3413.13 | 3465.4 | -1.0 | -1.0 | 10.4 | 3464.9 | 0.5 |
| 222 | 0010 0010 | 3428.75 | 3478.8 | 0.7 | -0.1 | 13.4 | 3480.7 | -1.9 |
| 223 | 0010 0001 | 3444.38 | 3500.8 | 0.5 | 0.6 | 21.9 | 3496.6 | 4.2 |
| 224 | 0010 0000 | 3460.00 | 3513.7 | -0.0 | 0.7 | 12.9 | 3512.5 | 1.2 |
| 225 | 0001 1111 | 3475.63 | 3522.1 | -0.8 | -0.7 | 8.4 | 3528.3 | -6.2 |
| 226 | 0001 1110 | 3491.25 | 3537.9 | -0.9 | -0.9 | 15.8 | 3544.2 | -6.2 |
| 227 | 0001 1101 | 3506.88 | 3563.6 | 0.6 | 0.8 | 25.7 | 3560.0 | 3.6 |
| 228 | 0001 1100 | 3522.50 | 3568.7 | 0.6 | 0.6 | 5.0 | 3575.9 | -7.2 |
| 229 | 0001 1011 | 3538.13 | 3596.4 | -1.0 | 0.0 | 27.8 | 3591.8 | 4.7 |
| 230 | 0001 1010 | 3553.75 | 3608.2 | -0.8 | -0.7 | 11.8 | 3607.6 | 0.6 |
| 231 | 0001 1001 | 3569.38 | 3631.5 | -0.1 | -0.8 | 23.3 | 3623.5 | 8.0 |
| 232 | 0001 1000 | 3585.00 | 3635.0 | 0.8 | 0.8 | 3.5 | 3639.4 | -4.4 |
| 233 | 0001 0111 | 3600.63 | 3649.9 | 0.7 | 0.8 | 14.9 | 3655.2 | -5.3 |
| 234 | 0001 0110 | 3616.25 | 3668.6 | -0.9 | -0.8 | 18.7 | 3671.1 | -2.5 |
| 235 | 0001 0101 | 3631.88 | 3693.3 | -0.9 | -0.8 | 24.7 | 3686.9 | 6.4 |
| 236 | 0001 0100 | 3647.50 | 3707.7 | 0.8 | -0.1 | 14.4 | 3702.8 | 4.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 689
 1981/11/30 16:11:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=7)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3721.1 | -2.9 | 0.9 | 13.4 | 3718.7 | 2.4 |
| 238 | 0001 0010 | 3678.75 | 3740.0 | -0.2 | 0.8 | 18.9 | 3734.5 | 5.4 |
| 239 | 0001 0001 | 3694.38 | 3758.1 | -0.9 | -0.8 | 18.1 | 3750.4 | 7.7 |
| 240 | 0001 0000 | 3710.00 | 3774.8 | -0.0 | 0.1 | 16.6 | 3766.3 | 8.5 |
| 241 | 0000 1111 | 3725.63 | 3777.8 | 0.8 | 0.8 | 3.0 | 3782.1 | -4.3 |
| 242 | 0000 1110 | 3741.25 | 3794.1 | 0.7 | 0.8 | 16.3 | 3798.0 | -3.9 |
| 243 | 0000 1101 | 3756.88 | 3821.2 | -1.0 | 0.0 | 27.1 | 3813.8 | 7.4 |
| 244 | 0000 1100 | 3772.50 | 3829.6 | -0.8 | -0.6 | 8.3 | 3829.7 | -0.1 |
| 245 | 0000 1011 | 3788.13 | 3853.2 | -7.4 | -0.8 | 23.6 | 3845.6 | 7.6 |
| 246 | 0000 1010 | 3803.75 | 3865.5 | 0.7 | 0.8 | 12.4 | 3861.4 | 4.1 |
| 247 | 0000 1001 | 3819.38 | 3887.3 | 0.5 | 0.5 | 21.8 | 3877.3 | 10.0 |
| 248 | 0000 1000 | 3835.00 | 3898.1 | -0.8 | -0.6 | 10.8 | 3893.2 | 5.0 |
| 249 | 0000 0111 | 3850.63 | 3907.7 | -0.9 | 5.9 | 9.5 | 3909.0 | -1.4 |
| 250 | 0000 0110 | 3866.25 | 3925.0 | 0.7 | -0.1 | 17.4 | 3924.9 | 0.2 |
| 251 | 0000 0101 | 3881.88 | 3949.6 | 0.6 | 0.9 | 24.5 | 3940.7 | 8.8 |
| 252 | 0000 0100 | 3897.50 | 3968.3 | -0.6 | 0.1 | 18.7 | 3956.6 | 11.7 |
| 253 | 0000 0011 | 3913.13 | 3979.1 | -0.9 | -0.8 | 10.8 | 3972.5 | 6.7 |
| 254 | 0000 0010 | 3928.75 | 3992.7 | -0.6 | -0.6 | 13.6 | 3988.3 | 4.4 |
| 255 | 0000 0001 | 3944.38 | 4014.6 | 0.6 | 0.9 | 21.9 | 4004.2 | 10.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 690
 1981/11/30 16:18:01 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)
 S U M M A R Y



CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.847X - 43.5MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.419%
 OFFSET IS: -43.5MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998230$
 ANALOG INPUT DURING DC RESTORE IS: 64.5MV

RMS ERROR = 4.742MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 28.3MV | 227 | 15.921MV | 2.6MV | 144 | 6.327MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.2MV | 164 | -0.074MV | -3.6MV | 205 | .770MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|---------|---------|-------------|--------------------|
| 2.0MV | 92 | 0.009MV | -1.2MV | 162 | .719MV |

TEST PASSED

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3-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 691

781/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)

| RESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 :1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION | |
|--|------------------------|---|-------|-------|------------------------------------|---|--|
| | | NOMINAL | LOWER | UPPER | | | |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -31.9 | 0.2 | 0.9 | | -27.6 | -4.3 |
| 2 | 1111 1110 | -8.750 | -19.8 | -0.9 | -0.0 | 12.0 | -11.8 | -8.1 |
| 3 | 1111 1101 | 6.875 | 4.9 | -0.8 | -0.7 | 24.7 | 4.1 | 0.8 |
| 4 | 1111 1100 | 22.500 | 14.0 | 0.0 | -0.7 | 9.1 | 19.9 | -5.9 |
| 5 | 1111 1011 | 38.125 | 34.7 | 0.7 | 0.8 | 20.7 | 35.8 | -1.1 |
| 6 | 1111 1010 | 53.750 | 48.1 | 0.8 | 0.7 | 13.4 | 51.6 | -3.6 |
| 7 | 1111 1001 | 69.375 | 71.7 | -0.8 | 0.0 | 23.6 | 67.5 | 4.2 |
| 8 | 1111 1000 | 85.000 | 76.7 | -0.8 | -0.8 | 5.0 | 83.3 | -6.6 |
| 9 | 1111 0111 | 100.625 | 96.5 | 0.6 | -0.1 | 19.8 | 99.2 | -2.6 |
| 10 | 1111 0110 | 116.250 | 109.6 | 0.7 | 0.7 | 13.0 | 115.0 | -5.4 |
| 11 | 1111 0101 | 131.875 | 132.6 | -0.1 | 0.8 | 23.0 | 130.9 | 1.7 |
| 12 | 1111 0100 | 147.500 | 147.4 | -0.8 | -0.8 | 14.8 | 146.7 | 0.7 |
| 13 | 1111 0011 | 163.125 | 163.5 | -0.8 | -0.8 | 16.1 | 162.5 | 1.0 |
| 14 | 1111 0010 | 178.750 | 178.1 | 0.7 | -0.0 | 14.6 | 178.4 | -0.3 |
| 15 | 1111 0001 | 194.375 | 199.0 | 0.7 | 0.8 | 20.8 | 194.2 | 4.7 |
| 16 | 1111 0000 | 210.000 | 209.0 | -0.7 | 0.0 | 10.0 | 210.1 | -1.1 |
| 17 | 1110 1111 | 225.625 | 224.3 | -0.8 | -0.8 | 15.3 | 225.9 | -1.6 |
| 18 | 1110 1110 | 241.250 | 235.8 | 0.0 | -0.8 | 11.5 | 241.8 | -6.0 |
| 19 | 1110 1101 | 256.875 | 259.5 | 0.7 | 0.8 | 23.7 | 257.6 | 1.9 |
| 20 | 1110 1100 | 272.500 | 271.2 | 0.7 | 0.7 | 11.7 | 273.5 | -2.3 |
| 21 | 1110 1011 | 288.125 | 290.9 | -0.8 | 0.0 | 19.7 | 289.3 | 1.6 |
| 22 | 1110 1010 | 303.750 | 304.4 | -0.8 | -0.7 | 13.5 | 305.2 | -0.7 |
| 23 | 1110 1001 | 319.375 | 326.1 | 0.7 | 0.1 | 21.7 | 321.0 | 5.1 |
| 24 | 1110 1000 | 335.000 | 335.5 | 0.7 | 0.7 | 9.4 | 336.9 | -1.3 |
| 25 | 1110 0111 | 350.625 | 351.7 | -0.1 | 0.7 | 16.2 | 352.7 | -1.0 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 692

1981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



REV 30

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 365.8 | -0.9 | -0.9 | 14.1 | 368.6 | -2.7 |
| 27 | 1110 0101 | 381.875 | 388.5 | -0.8 | -0.7 | 22.7 | 384.4 | 4.1 |
| 28 | 1110 0100 | 397.500 | 404.6 | 0.6 | -0.1 | 16.1 | 400.2 | 4.4 |
| 29 | 1110 0011 | 413.125 | 417.9 | 0.7 | 0.7 | 13.3 | 416.1 | 1.8 |
| 30 | 1110 0010 | 428.750 | 434.4 | -0.9 | -0.0 | 16.4 | 431.9 | 2.4 |
| 31 | 1110 0001 | 444.375 | 454.7 | -0.8 | -0.7 | 20.3 | 447.8 | 6.9 |
| 32 | 1110 0000 | 460.000 | 459.3 | 0.0 | -0.7 | 4.6 | 463.6 | -4.3 |
| 33 | 1101 1111 | 475.625 | 479.3 | 0.6 | 0.7 | 19.9 | 479.5 | -0.2 |
| 34 | 1101 1110 | 491.250 | 489.9 | 0.8 | 0.7 | 10.6 | 495.3 | -5.4 |
| 35 | 1101 1101 | 506.875 | 515.8 | -0.8 | 0.0 | 25.9 | 511.2 | 4.6 |
| 36 | 1101 1100 | 522.500 | 524.5 | -0.7 | -0.7 | 8.7 | 527.0 | -2.6 |
| 37 | 1101 1011 | 538.125 | 545.6 | 0.7 | 0.0 | 21.2 | 542.9 | 2.8 |
| 38 | 1101 1010 | 553.750 | 558.6 | 0.7 | 0.8 | 12.9 | 558.7 | -0.1 |
| 39 | 1101 1001 | 569.375 | 581.7 | -0.1 | 0.7 | 23.1 | 574.6 | 7.1 |
| 40 | 1101 1000 | 585.000 | 589.5 | -0.8 | -0.9 | 7.8 | 590.4 | -0.9 |
| 41 | 1101 0111 | 600.625 | 607.8 | -0.8 | -0.8 | 18.3 | 606.3 | 1.5 |
| 42 | 1101 0110 | 616.250 | 619.6 | 0.7 | -0.1 | 11.8 | 622.1 | -2.5 |
| 43 | 1101 0101 | 631.875 | 642.9 | 0.6 | 0.7 | 23.3 | 637.9 | 5.0 |
| 44 | 1101 0100 | 647.500 | 657.7 | -0.8 | -0.1 | 14.7 | 653.8 | 3.9 |
| 45 | 1101 0011 | 663.125 | 673.9 | -0.8 | -0.8 | 16.2 | 669.6 | 4.2 |
| 46 | 1101 0010 | 678.750 | 688.6 | -0.0 | -0.9 | 14.8 | 685.5 | 3.1 |
| 47 | 1101 0001 | 694.375 | 708.9 | 0.7 | 0.8 | 20.2 | 701.3 | 7.5 |
| 48 | 1101 0000 | 710.000 | 721.6 | 0.6 | 0.7 | 12.7 | 717.2 | 4.4 |
| 49 | 1100 1111 | 725.625 | 734.1 | -0.8 | -0.0 | 12.5 | 733.0 | 1.1 |
| 50 | 1100 1110 | 741.250 | 745.0 | -0.8 | -0.7 | 10.9 | 748.9 | -3.8 |
| 51 | 1100 1101 | 756.875 | 769.1 | 0.7 | 0.0 | 24.0 | 764.7 | 4.3 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 693

1981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



REV 30 71

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 780.9 | 0.6 | 0.7 | 11.8 | 780.6 | 0.3 |
| 53 | 1100 1011 | 788.125 | 799.6 | -0.1 | 0.7 | 18.7 | 796.4 | 3.2 |
| 54 | 1100 1010 | 803.750 | 813.3 | -0.8 | -0.9 | 13.7 | 812.3 | 1.1 |
| 55 | 1100 1001 | 819.375 | 835.8 | -0.8 | -0.8 | 22.5 | 828.1 | 7.7 |
| 56 | 1100 1000 | 835.000 | 847.0 | 0.7 | -0.1 | 11.1 | 844.0 | 3.0 |
| 57 | 1100 0111 | 850.625 | 860.4 | 0.7 | 0.7 | 13.4 | 859.8 | 0.6 |
| 58 | 1100 0110 | 866.250 | 873.2 | -0.0 | 0.8 | 12.8 | 875.6 | -2.4 |
| 59 | 1100 0101 | 881.875 | 896.9 | -0.8 | -0.8 | 23.6 | 891.5 | 5.4 |
| 60 | 1100 0100 | 897.500 | 914.0 | -0.1 | -0.8 | 17.1 | 907.3 | 6.7 |
| 61 | 1100 0011 | 913.125 | 926.3 | 0.7 | 0.8 | 12.2 | 923.2 | 3.1 |
| 62 | 1100 0010 | 928.750 | 941.1 | 0.8 | 0.7 | 14.9 | 939.0 | 2.1 |
| 63 | 1100 0001 | 944.375 | 962.4 | -0.8 | -0.0 | 21.2 | 954.9 | 7.5 |
| 64 | 1100 0000 | 960.000 | 972.7 | -0.7 | -0.7 | 10.3 | 970.7 | 1.9 |
| 65 | 1011 1111 | 975.625 | 988.2 | 0.0 | -0.8 | 15.5 | 986.6 | 1.6 |
| 66 | 1011 1110 | 991.250 | 996.9 | 0.7 | 0.8 | 8.7 | 1002.4 | -5.5 |
| 67 | 1011 1101 | 1006.88 | 1022.6 | -0.0 | 0.7 | 25.7 | 1018.3 | 4.4 |
| 68 | 1011 1100 | 1022.50 | 1030.3 | -0.7 | -0.7 | 7.7 | 1034.1 | -3.8 |
| 69 | 1011 1011 | 1038.13 | 1053.1 | -0.8 | -0.8 | 22.7 | 1050.0 | 3.1 |
| 70 | 1011 1010 | 1053.75 | 1065.0 | 0.7 | 0.0 | 11.9 | 1065.8 | -0.8 |
| 71 | 1011 1001 | 1069.38 | 1089.2 | 0.7 | 0.7 | 24.2 | 1081.7 | 7.6 |
| 72 | 1011 1000 | 1085.00 | 1092.5 | -0.0 | 0.7 | 3.3 | 1097.5 | -5.0 |
| 73 | 1011 0111 | 1100.63 | 1114.9 | -0.7 | -0.7 | 22.4 | 1113.3 | 1.6 |
| 74 | 1011 0110 | 1116.25 | 1126.4 | -0.1 | -0.9 | 11.5 | 1129.2 | -2.8 |
| 75 | 1011 0101 | 1131.88 | 1149.7 | 0.7 | 0.7 | 23.3 | 1145.0 | 4.6 |
| 76 | 1011 0100 | 1147.50 | 1162.7 | 0.7 | 0.7 | 13.0 | 1160.9 | 1.8 |
| 77 | 1011 0011 | 1163.13 | 1179.7 | -0.7 | 0.0 | 17.1 | 1176.7 | 3.0 |
| 78 | 1011 0010 | 1178.75 | 1194.0 | -0.8 | -0.8 | 14.3 | 1192.6 | 1.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 694
 1981/11/30 13:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



NO 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | TDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1216.4 | 0.0 | -0.8 | 22.3 | 1208.4 | 7.9 |
| 80 | 1011 0000 | 1210.00 | 1221.8 | 0.8 | 0.9 | 5.4 | 1224.3 | -2.5 |
| 81 | 1010 1111 | 1225.63 | 1239.6 | 0.0 | 0.7 | 17.9 | 1240.1 | -0.4 |
| 82 | 1010 1110 | 1241.25 | 1250.3 | -0.9 | -0.9 | 10.6 | 1256.0 | -5.6 |
| 83 | 1010 1101 | 1256.88 | 1275.7 | -0.8 | -0.8 | 25.4 | 1271.8 | 3.9 |
| 84 | 1010 1100 | 1272.50 | 1284.8 | 0.8 | -0.0 | 9.0 | 1287.7 | -2.9 |
| 85 | 1010 1011 | 1288.13 | 1304.5 | 0.8 | 0.8 | 19.7 | 1303.5 | 1.0 |
| 86 | 1010 1010 | 1303.75 | 1317.4 | 0.0 | 0.8 | 12.9 | 1319.4 | -1.9 |
| 87 | 1010 1001 | 1319.38 | 1342.0 | -0.7 | -0.7 | 24.5 | 1335.2 | 6.8 |
| 88 | 1010 1000 | 1335.00 | 1350.4 | -0.0 | -0.7 | 8.4 | 1351.0 | -0.7 |
| 89 | 1010 0111 | 1350.63 | 1366.2 | 0.7 | 0.7 | 15.8 | 1366.9 | -0.7 |
| 90 | 1010 0110 | 1366.25 | 1377.8 | 0.8 | 0.7 | 11.6 | 1382.7 | -5.0 |
| 91 | 1010 0101 | 1381.88 | 1402.4 | -0.8 | -0.0 | 24.6 | 1398.6 | 3.8 |
| 92 | 1010 0100 | 1397.50 | 1415.8 | -0.7 | 2.0 | 13.4 | 1414.4 | 1.4 |
| 93 | 1010 0011 | 1413.13 | 1431.8 | -0.1 | -0.7 | 16.0 | 1430.3 | 1.5 |
| 94 | 1010 0010 | 1428.75 | 1445.6 | 0.7 | 0.7 | 13.7 | 1446.1 | -0.6 |
| 95 | 1010 0001 | 1444.38 | 1467.5 | -0.1 | 0.7 | 21.9 | 1462.0 | 5.5 |
| 96 | 1010 0000 | 1460.00 | 1474.9 | -0.7 | -0.8 | 7.4 | 1477.8 | -3.0 |
| 97 | 1001 1111 | 1475.63 | 1493.0 | -0.9 | -0.8 | 18.2 | 1493.7 | -0.6 |
| 98 | 1001 1110 | 1491.25 | 1501.4 | 0.8 | -0.0 | 8.3 | 1509.5 | -8.1 |
| 99 | 1001 1101 | 1506.88 | 1527.2 | 0.8 | 0.8 | 25.8 | 1525.4 | 1.9 |
| 100 | 1001 1100 | 1522.50 | 1534.2 | 0.0 | 0.7 | 7.0 | 1541.2 | -7.0 |
| 101 | 1001 1011 | 1538.13 | 1557.7 | -0.8 | -0.8 | 23.4 | 1557.1 | 0.6 |
| 102 | 1001 1010 | 1553.75 | 1569.9 | -0.0 | -0.8 | 12.2 | 1572.9 | -3.0 |
| 103 | 1001 1001 | 1569.38 | 1593.6 | 0.7 | 0.8 | 23.7 | 1588.7 | 4.8 |
| 104 | 1001 1000 | 1585.00 | 1599.2 | 0.8 | 0.7 | 5.6 | 1604.6 | -5.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 695
 1981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=8)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1630.63 | 1619.3 | -0.8 | 0.0 | 20.1 | 1620.4 | -1.1 |
| 106 | 1001 0110 | 1616.25 | 1530.5 | -0.8 | -0.8 | 11.2 | 1636.3 | -5.8 |
| 107 | 1001 0101 | 1631.88 | 1654.8 | -0.0 | -0.8 | 24.4 | 1652.1 | 2.7 |
| 108 | 1001 0100 | 1647.50 | 1664.8 | 0.7 | 0.7 | 9.9 | 1668.0 | -3.2 |
| 109 | 1001 0011 | 1663.13 | 1683.5 | -0.0 | 0.7 | 18.7 | 1683.8 | -0.4 |
| 110 | 1001 0010 | 1678.75 | 1698.2 | -0.8 | -0.9 | 14.8 | 1699.7 | -1.4 |
| 111 | 1001 0001 | 1694.38 | 1720.5 | -0.7 | -0.7 | 22.2 | 1715.5 | 4.9 |
| 112 | 1001 0000 | 1710.00 | 1735.1 | 0.7 | -0.0 | 14.6 | 1731.4 | 3.7 |
| 113 | 1000 1111 | 1725.63 | 1744.0 | 0.8 | 0.8 | 8.9 | 1747.2 | -3.2 |
| 114 | 1000 1110 | 1741.25 | 1753.6 | 0.0 | 0.8 | 9.5 | 1763.1 | -9.5 |
| 115 | 1000 1101 | 1756.88 | 1780.0 | -0.8 | -0.8 | 26.4 | 1778.9 | 1.1 |
| 116 | 1000 1100 | 1772.50 | 1790.3 | -0.0 | -0.8 | 10.3 | 1794.8 | -4.4 |
| 117 | 1000 1011 | 1788.13 | 1808.8 | 0.8 | 0.8 | 18.5 | 1810.6 | -1.8 |
| 118 | 1000 1010 | 1803.75 | 1821.4 | 0.8 | 0.7 | 12.6 | 1826.4 | -5.0 |
| 119 | 1000 1001 | 1819.38 | 1846.0 | -0.9 | -0.1 | 24.6 | 1842.3 | 3.7 |
| 120 | 1000 1000 | 1835.00 | 1856.5 | -0.8 | -0.2 | 10.5 | 1858.1 | -1.7 |
| 121 | 1000 0111 | 1850.63 | 1870.8 | 0.0 | -0.7 | 14.3 | 1874.0 | -3.2 |
| 122 | 1000 0110 | 1866.25 | 1881.8 | 0.7 | 0.7 | 11.0 | 1889.8 | -8.0 |
| 123 | 1000 0101 | 1881.88 | 1905.8 | 0.0 | 0.8 | 24.0 | 1905.7 | 0.1 |
| 124 | 1000 0100 | 1897.50 | 1919.9 | -0.7 | -0.8 | 14.1 | 1921.5 | -1.6 |
| 125 | 1000 0011 | 1913.13 | 1932.3 | -0.7 | -0.8 | 12.3 | 1937.4 | -5.1 |
| 126 | 1000 0010 | 1928.75 | 1949.3 | 0.9 | -0.0 | 17.1 | 1953.2 | -3.9 |
| 127 | 1000 0001 | 1944.38 | 1971.1 | 0.8 | 0.8 | 21.7 | 1969.1 | 2.0 |
| 128 | 1000 0000 | 1960.00 | 1989.6 | 0.1 | 0.7 | 18.5 | 1984.9 | 4.6 |
| 129 | 0111 1111 | 1975.63 | 2001.6 | -0.0 | 0.8 | 12.1 | 2000.8 | 0.9 |
| 130 | 0111 1110 | 1991.25 | 2012.6 | -0.0 | -0.9 | 10.9 | 2016.6 | -4.0 |

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IS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 696

1981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2037.7 | 0.8 | 0.7 | 25.1 | 2032.5 | 5.2 |
| 132 | 0111 1100 | 2022.50 | 2044.2 | 0.7 | 0.6 | 6.5 | 2048.3 | -4.1 |
| 133 | 0111 1011 | 2038.13 | 2066.8 | -0.8 | 0.0 | 22.6 | 2064.1 | 2.7 |
| 134 | 0111 1010 | 2053.75 | 2080.7 | -0.8 | -0.9 | 13.9 | 2080.0 | 0.7 |
| 135 | 0111 1001 | 2069.38 | 2105.1 | 0.0 | -0.8 | 24.4 | 2095.8 | 9.3 |
| 136 | 0111 1000 | 2085.00 | 2108.1 | 0.4 | 0.6 | 3.0 | 2111.7 | -3.6 |
| 137 | 0111 0111 | 2100.63 | 2123.2 | -0.0 | 0.7 | 15.1 | 2127.5 | -4.3 |
| 138 | 0111 0110 | 2116.25 | 2141.0 | -0.8 | -0.9 | 17.8 | 2143.4 | -2.4 |
| 139 | 0111 0101 | 2131.88 | 2165.4 | -0.8 | -0.3 | 24.4 | 2159.2 | 6.2 |
| 140 | 0111 0100 | 2147.50 | 2178.6 | 0.7 | -0.0 | 13.1 | 2175.1 | 3.5 |
| 141 | 0111 0011 | 2163.13 | 2192.8 | 0.8 | 0.8 | 14.2 | 2190.9 | 1.9 |
| 142 | 0111 0010 | 2178.75 | 2208.0 | 0.0 | 1.0 | 15.2 | 2206.8 | 1.2 |
| 143 | 0111 0001 | 2194.38 | 2231.2 | -0.9 | -0.7 | 23.2 | 2222.6 | 8.6 |
| 144 | 0111 0000 | 2210.00 | 2233.8 | -0.0 | -0.7 | 2.6 | 2238.5 | -4.6 |
| 145 | 0110 1111 | 2225.63 | 2248.5 | 0.9 | 0.8 | 14.7 | 2254.3 | -5.8 |
| 146 | 0110 1110 | 2241.25 | 2264.3 | 0.8 | 0.7 | 15.8 | 2270.2 | -5.8 |
| 147 | 0110 1101 | 2256.88 | 2290.5 | -0.6 | 0.0 | 26.1 | 2286.0 | 4.5 |
| 148 | 0110 1100 | 2272.50 | 2300.3 | -0.8 | -0.8 | 9.8 | 2301.8 | -1.6 |
| 149 | 0110 1011 | 2288.13 | 2315.8 | 0.0 | -0.9 | 15.5 | 2317.7 | -1.9 |
| 150 | 0110 1010 | 2303.75 | 2331.7 | 0.8 | 0.7 | 13.0 | 2333.5 | -1.8 |
| 151 | 0110 1001 | 2319.38 | 2356.6 | 0.7 | 0.7 | 24.9 | 2349.4 | 7.2 |
| 152 | 0110 1000 | 2335.00 | 2363.5 | -0.8 | -0.8 | 6.9 | 2365.2 | -1.7 |
| 153 | 0110 0111 | 2350.63 | 2376.0 | -0.8 | -0.8 | 12.5 | 2381.1 | -5.1 |
| 154 | 0110 0110 | 2366.25 | 2392.6 | 0.8 | 0.0 | 16.6 | 2396.9 | -4.4 |
| 155 | 0110 0101 | 2381.88 | 2416.8 | 0.8 | 0.7 | 24.2 | 2412.8 | 4.0 |
| 156 | 0110 0100 | 2397.50 | 2429.9 | -0.1 | 0.7 | 13.1 | 2428.6 | 1.3 |
| 157 | 0110 0011 | 2413.13 | 2445.8 | -0.8 | -0.9 | 15.9 | 2444.5 | 1.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 697

1981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2461.1 | -1.0 | -0.9 | 15.3 | 2460.3 | 0.8 |
| 159 | 0110 0001 | 2444.38 | 2483.0 | 0.8 | 0.8 | 21.8 | 2476.2 | 6.8 |
| 160 | 0110 0000 | 2460.00 | 2489.4 | 0.7 | 0.6 | 6.4 | 2492.0 | -2.6 |
| 161 | 0101 1111 | 2475.63 | 2501.8 | -0.8 | 0.0 | 12.4 | 2507.9 | -6.0 |
| 162 | 0101 1110 | 2491.25 | 2517.4 | -0.1 | -1.2 | 15.6 | 2523.7 | -6.3 |
| 163 | 0101 1101 | 2506.88 | 2543.3 | -0.0 | -0.8 | 25.9 | 2539.5 | 3.8 |
| 164 | 0101 1100 | 2522.50 | 2548.6 | 1.2 | 1.2 | 5.3 | 2555.4 | -6.8 |
| 165 | 0101 1011 | 2538.13 | 2567.4 | 0.8 | 0.8 | 18.8 | 2571.2 | -3.8 |
| 166 | 0101 1010 | 2553.75 | 2585.1 | -0.6 | -0.6 | 17.6 | 2587.1 | -2.0 |
| 167 | 0101 1001 | 2569.38 | 2609.9 | -0.7 | -0.8 | 24.9 | 2602.9 | 7.0 |
| 168 | 0101 1000 | 2585.00 | 2613.2 | 1.1 | 0.0 | 3.3 | 2618.8 | -5.6 |
| 169 | 0101 0111 | 2600.63 | 2627.7 | 0.8 | 0.8 | 14.5 | 2634.6 | -6.9 |
| 170 | 0101 0110 | 2616.25 | 2644.7 | -0.1 | 1.0 | 17.0 | 2650.5 | -5.7 |
| 171 | 0101 0101 | 2631.88 | 2670.4 | -0.8 | -0.8 | 25.6 | 2666.3 | 4.1 |
| 172 | 0101 0100 | 2647.50 | 2689.7 | -0.8 | -0.8 | 10.3 | 2682.2 | -1.5 |
| 173 | 0101 0011 | 2663.13 | 2697.7 | -2.6 | 0.7 | 17.0 | 2698.0 | -0.4 |
| 174 | 0101 0010 | 2678.75 | 2712.6 | 0.7 | 0.6 | 14.9 | 2713.9 | -1.2 |
| 175 | 0101 0001 | 2694.38 | 2736.7 | -0.8 | -0.1 | 24.1 | 2729.7 | 7.0 |
| 176 | 0101 0000 | 2710.00 | 2749.2 | -0.7 | -0.7 | 12.4 | 2745.6 | 3.6 |
| 177 | 0100 1111 | 2725.63 | 2754.2 | -0.0 | -0.8 | 5.0 | 2761.4 | -7.2 |
| 178 | 0100 1110 | 2741.25 | 2768.9 | 0.8 | 0.8 | 14.7 | 2777.2 | -8.4 |
| 179 | 0100 1101 | 2756.88 | 2794.8 | 0.8 | 0.9 | 26.0 | 2793.1 | 1.7 |
| 180 | 0100 1100 | 2772.50 | 2805.7 | -0.8 | -0.8 | 10.9 | 2808.9 | -3.2 |
| 181 | 0100 1011 | 2788.13 | 2820.5 | -0.8 | -0.8 | 14.7 | 2824.8 | -4.3 |
| 182 | 0100 1010 | 2803.75 | 2835.9 | 0.7 | -0.1 | 15.5 | 2840.6 | -4.7 |
| 183 | 0100 1001 | 2819.38 | 2861.5 | 0.8 | 0.8 | 25.5 | 2856.5 | 5.0 |

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IS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 698

981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2874.3 | -0.0 | 0.7 | 12.8 | 2872.3 | 2.0 |
| 185 | 0100 0111 | 2850.63 | 2880.9 | -0.8 | -0.8 | 6.5 | 2888.2 | -7.3 |
| 186 | 0100 0110 | 2866.25 | 2898.2 | -0.9 | -0.8 | 17.3 | 2904.0 | -5.8 |
| 187 | 0100 0101 | 2881.88 | 2922.0 | 0.8 | 0.9 | 23.7 | 2919.9 | 2.1 |
| 188 | 0100 0100 | 2897.50 | 2935.0 | 0.7 | 0.7 | 13.0 | 2935.7 | -0.7 |
| 189 | 0100 0011 | 2913.13 | 2947.4 | -0.9 | -0.1 | 12.4 | 2951.6 | -4.1 |
| 190 | 0100 0010 | 2928.75 | 2966.2 | -0.9 | -0.9 | 18.8 | 2967.4 | -1.2 |
| 191 | 0100 0001 | 2944.38 | 2989.0 | -0.0 | -0.7 | 22.8 | 2983.3 | 5.8 |
| 192 | 0100 0000 | 2960.00 | 3002.0 | 0.6 | 0.7 | 12.9 | 2999.1 | 2.9 |
| 193 | 0011 1111 | 2975.63 | 3006.3 | 0.8 | 0.8 | 4.3 | 3014.9 | -8.6 |
| 194 | 0011 1110 | 2991.25 | 3022.3 | -0.8 | -0.9 | 16.0 | 3030.8 | -8.5 |
| 195 | 0011 1101 | 3006.88 | 3048.9 | -0.6 | -0.5 | 26.6 | 3046.6 | 2.3 |
| 196 | 0011 1100 | 3022.50 | 3053.6 | 0.8 | -0.0 | 4.7 | 3062.5 | -0.9 |
| 197 | 0011 1011 | 3038.13 | 3073.0 | 0.8 | 0.9 | 19.5 | 3078.3 | -5.3 |
| 198 | 0011 1010 | 3053.75 | 3089.9 | -0.0 | 0.8 | 16.8 | 3094.2 | -4.3 |
| 199 | 0011 1001 | 3069.38 | 3116.1 | -0.8 | -0.8 | 26.2 | 3110.0 | 6.0 |
| 200 | 0011 1000 | 3085.00 | 3119.5 | -0.8 | -0.8 | 3.4 | 3125.9 | -6.4 |
| 201 | 0011 0111 | 3100.63 | 3133.6 | 0.9 | 0.9 | 14.1 | 3141.7 | -8.1 |
| 202 | 0011 0110 | 3116.25 | 3150.8 | 0.7 | 0.7 | 17.2 | 3157.6 | -6.8 |
| 203 | 0011 0101 | 3131.88 | 3176.7 | -0.9 | -0.0 | 26.1 | 3173.4 | 3.5 |
| 204 | 0011 0100 | 3147.50 | 3190.2 | -0.7 | -0.7 | 13.3 | 3189.3 | 1.0 |
| 205 | 0011 0011 | 3163.13 | 3205.0 | -3.6 | -0.8 | 14.7 | 3205.1 | -0.1 |
| 206 | 0011 0010 | 3178.75 | 3218.3 | 0.6 | 0.7 | 13.3 | 3221.0 | -2.6 |
| 207 | 0011 0001 | 3194.38 | 3243.3 | 0.6 | 0.7 | 24.9 | 3236.8 | 6.5 |
| 208 | 0011 0000 | 3210.00 | 3248.1 | -0.7 | -0.7 | 4.8 | 3252.6 | -4.5 |
| 209 | 0010 1111 | 3225.63 | 3261.2 | -0.8 | -0.8 | 13.0 | 3268.5 | -7.3 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 699
 1981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3275.7 | 0.8 | 0.0 | 14.5 | 3284.3 | -8.6 |
| 211 | 0010 1101 | 3256.88 | 3302.6 | 0.7 | 0.8 | 26.9 | 3300.2 | 2.4 |
| 212 | 0010 1100 | 3272.50 | 3311.0 | -0.0 | 0.8 | 8.4 | 3316.0 | -5.0 |
| 213 | 0010 1011 | 3288.13 | 3328.0 | -0.8 | -0.8 | 17.0 | 3331.9 | -3.9 |
| 214 | 0010 1010 | 3303.75 | 3343.4 | -0.7 | -0.8 | 15.4 | 3347.7 | -4.3 |
| 215 | 0010 1001 | 3319.38 | 3369.6 | 0.7 | 0.9 | 26.2 | 3363.6 | 6.1 |
| 216 | 0010 1000 | 3335.00 | 3375.9 | 0.7 | 0.8 | 6.3 | 3379.4 | -3.5 |
| 217 | 0010 0111 | 3350.63 | 3388.9 | -0.8 | 0.0 | 13.0 | 3395.3 | -6.4 |
| 218 | 0010 0110 | 3366.25 | 3406.2 | -0.9 | -0.8 | 17.3 | 3411.1 | -4.9 |
| 219 | 0010 0101 | 3381.88 | 3431.6 | -0.1 | -0.8 | 25.4 | 3427.0 | 4.7 |
| 220 | 0010 0100 | 3397.50 | 3442.9 | 0.7 | 0.7 | 11.2 | 3442.8 | 0.1 |
| 221 | 0010 0011 | 3413.13 | 3455.3 | 0.8 | 0.8 | 12.4 | 3458.7 | -3.4 |
| 222 | 0010 0010 | 3428.75 | 3474.5 | -0.9 | -0.8 | 19.2 | 3474.5 | -0.0 |
| 223 | 0010 0001 | 3444.38 | 3498.7 | -0.9 | -0.8 | 24.2 | 3490.3 | 8.3 |
| 224 | 0010 0000 | 3460.00 | 3503.2 | 0.7 | 0.1 | 4.5 | 3506.2 | -3.0 |
| 225 | 0001 1111 | 3475.63 | 3515.8 | 0.7 | 0.8 | 12.7 | 3522.0 | -6.2 |
| 226 | 0001 1110 | 3491.25 | 3530.8 | -0.1 | 0.8 | 15.0 | 3537.9 | -7.0 |
| 227 | 0001 1101 | 3506.88 | 3559.1 | -0.9 | -0.8 | 28.3 | 3553.7 | 5.4 |
| 228 | 0001 1100 | 3522.50 | 3564.4 | -0.8 | -0.8 | 5.2 | 3569.6 | -5.2 |
| 229 | 0001 1011 | 3538.13 | 3582.9 | 0.7 | 0.8 | 18.5 | 3585.4 | -7.5 |
| 230 | 0001 1010 | 3553.75 | 3599.8 | 0.7 | 0.7 | 16.8 | 3601.3 | -1.5 |
| 231 | 0001 1001 | 3569.38 | 3626.6 | -1.0 | 0.1 | 26.8 | 3617.1 | 9.5 |
| 232 | 0001 1000 | 3585.00 | 3630.4 | -0.8 | -0.8 | 3.8 | 3633.0 | -2.6 |
| 233 | 0001 0111 | 3600.63 | 3645.0 | -0.1 | -0.7 | 14.6 | 3648.8 | -3.8 |
| 234 | 0001 0110 | 3616.25 | 3661.2 | 0.7 | 0.7 | 16.1 | 3664.7 | -3.5 |
| 235 | 0001 0101 | 3631.88 | 3687.2 | 0.8 | 0.9 | 26.0 | 3680.5 | 6.7 |
| 236 | 0001 0100 | 3647.50 | 3697.4 | -0.8 | -0.0 | 10.1 | 3696.4 | 1.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 700
 1981/11/30 16:18:15 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=8)



REV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3716.2 | -0.9 | -0.9 | 18.8 | 3712.2 | 4.0 |
| 238 | 0001 0010 | 3678.75 | 3729.0 | 0.6 | 0.0 | 12.8 | 3728.0 | 1.0 |
| 239 | 0001 0001 | 3694.38 | 3754.4 | 0.7 | 0.9 | 25.4 | 3743.9 | 10.6 |
| 240 | 0001 0000 | 3710.00 | 3770.2 | -0.1 | 0.7 | 15.7 | 3759.7 | 10.4 |
| 241 | 0000 1111 | 3725.63 | 3772.9 | -0.9 | -0.9 | 2.8 | 3775.6 | -2.6 |
| 242 | 0000 1110 | 3741.25 | 3788.2 | -1.0 | -0.8 | 15.2 | 3791.4 | -3.2 |
| 243 | 0000 1101 | 3756.88 | 3814.8 | 0.4 | 0.1 | 26.6 | 3807.3 | 7.6 |
| 244 | 0000 1100 | 3772.50 | 3823.8 | 0.6 | 0.6 | 9.0 | 3823.1 | 0.7 |
| 245 | 0000 1011 | 3788.13 | 3840.2 | -1.0 | 0.0 | 16.4 | 3839.0 | 1.3 |
| 246 | 0000 1010 | 3803.75 | 3856.0 | -1.4 | -1.2 | 15.7 | 3854.8 | 1.1 |
| 247 | 0000 1001 | 3819.38 | 3883.3 | -0.3 | -0.8 | 27.3 | 3870.7 | 12.6 |
| 248 | 0000 1000 | 3835.00 | 3896.0 | 0.9 | 0.9 | 12.7 | 3886.5 | 9.5 |
| 249 | 0000 0111 | 3850.63 | 3901.0 | 0.8 | 0.8 | 5.0 | 3902.4 | -1.3 |
| 250 | 0000 0110 | 3866.25 | 3919.1 | -1.0 | -0.1 | 18.1 | 3918.2 | 0.9 |
| 251 | 0000 0101 | 3881.88 | 3945.0 | -1.0 | -0.9 | 25.9 | 3934.1 | 11.0 |
| 252 | 0000 0100 | 3897.50 | 3956.1 | 0.7 | 0.0 | 11.1 | 3949.9 | 6.2 |
| 253 | 0000 0011 | 3913.13 | 3972.3 | -2.9 | 0.9 | 16.2 | 3965.7 | 6.6 |
| 254 | 0000 0010 | 3928.75 | 3986.7 | -0.1 | 0.8 | 14.4 | 3981.6 | 5.1 |
| 255 | 0000 0001 | 3944.38 | 4012.1 | -1.0 | -0.8 | 25.4 | 3997.4 | 14.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 701

1981/11/30 16:24:37 PENALTY FULL PERFORMANCE @ AMBIENT 10 IP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9)
S U M M A R Y

HAC
TEST
527

12 10 81

HECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)

THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.872X - 41.9MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.582%

OFFSET IS:-41.9MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998650$

ANALOG INPUT DURING DC RESTORE IS:64.4MV

RMS ERROR = 4.341MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 27.7MV | 243 | 15.922MV | 3.3MV | 32 | 5.814MV |

LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.3MV | 214 | -0.043MV | -1.5MV | 6 | .926MV |

UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|---------|-------------|----------|---------|-------------|--------------------|
| 1.3MV | 214 | -0.045MV | -3.8MV | 86 | .943MV |

TEST PASSED

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 702

1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -27.9 | -1.5 | -1.0 | | -26.1 | -1.9 |
| 2 | 1111 1110 | -8.750 | -18.8 | 0.8 | 0.0 | 9.2 | -10.2 | -8.6 |
| 3 | 1111 1101 | 6.875 | 6.3 | 0.9 | 1.0 | 25.1 | 5.7 | 0.7 |
| 4 | 1111 1100 | 22.500 | 19.3 | -0.0 | 1.0 | 13.0 | 21.6 | -2.2 |
| 5 | 1111 1011 | 38.125 | 38.1 | -1.0 | -1.0 | 18.8 | 37.4 | 0.7 |
| 6 | 1111 1010 | 53.750 | 52.2 | -1.5 | -1.8 | 14.1 | 53.3 | -1.1 |
| 7 | 1111 1001 | 69.375 | 73.6 | 0.9 | 0.0 | 21.4 | 69.2 | 4.4 |
| 8 | 1111 1000 | 85.000 | 77.9 | 1.0 | 0.9 | 4.2 | 85.0 | -7.2 |
| 9 | 1111 0111 | 100.625 | 100.0 | -0.9 | 0.1 | 22.1 | 100.9 | -1.0 |
| 10 | 1111 0110 | 116.250 | 112.4 | -1.1 | -1.0 | 12.4 | 116.8 | -4.4 |
| 11 | 1111 0101 | 131.875 | 135.8 | -0.1 | -1.0 | 23.3 | 132.7 | 3.1 |
| 12 | 1111 0100 | 147.500 | 150.6 | 0.9 | 1.0 | 14.8 | 148.5 | 2.1 |
| 13 | 1111 0011 | 163.125 | 165.2 | 1.0 | 1.0 | 14.6 | 164.4 | 0.8 |
| 14 | 1111 0010 | 178.750 | 180.9 | -1.1 | -0.0 | 15.6 | 180.3 | 0.6 |
| 15 | 1111 0001 | 194.375 | 203.0 | -1.1 | -1.1 | 22.1 | 196.1 | 6.8 |
| 16 | 1111 0000 | 210.000 | 211.5 | 0.9 | -0.0 | 8.5 | 212.0 | -0.6 |
| 17 | 1110 1111 | 225.625 | 226.4 | 1.0 | 1.0 | 14.9 | 227.9 | -1.5 |
| 18 | 1110 1110 | 241.250 | 236.8 | -0.0 | 0.9 | 10.4 | 243.8 | -6.9 |
| 19 | 1110 1101 | 256.875 | 262.7 | -1.0 | -1.0 | 25.9 | 259.6 | 3.1 |
| 20 | 1110 1100 | 272.500 | 277.6 | -1.1 | -1.1 | 14.9 | 275.5 | 2.1 |
| 21 | 1110 1011 | 288.125 | 292.2 | 1.0 | 0.0 | 14.6 | 291.4 | 0.8 |
| 22 | 1110 1010 | 303.750 | 305.2 | 0.9 | 1.0 | 13.0 | 307.3 | -2.0 |
| 23 | 1110 1001 | 319.375 | 329.9 | -1.1 | -0.0 | 24.6 | 323.1 | 6.8 |
| 24 | 1110 1000 | 335.000 | 339.3 | -1.0 | -1.0 | 9.4 | 339.0 | 0.3 |
| 25 | 1110 0111 | 350.625 | 354.9 | -0.1 | -0.9 | 15.5 | 354.9 | -0.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 703

1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9)



NO 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 366.9 | 1.0 | 0.9 | 12.0 | 370.7 | -3.9 |
| 27 | 1110 0101 | 381.875 | 389.9 | 0.9 | 1.0 | 23.0 | 386.6 | 3.3 |
| 28 | 1110 0100 | 397.500 | 409.6 | -1.1 | -0.1 | 19.7 | 402.5 | 7.1 |
| 29 | 1110 0011 | 413.125 | 421.1 | -1.1 | -1.1 | 11.5 | 418.4 | 2.7 |
| 30 | 1110 0010 | 428.750 | 435.3 | 1.0 | 0.0 | 14.2 | 434.2 | 1.0 |
| 31 | 1110 0001 | 444.375 | 456.8 | 1.0 | 1.0 | 21.5 | 450.1 | 6.7 |
| 32 | 1110 0000 | 460.000 | 460.1 | -0.0 | 0.9 | 3.3 | 466.0 | -5.8 |
| 33 | 1101 1111 | 475.625 | 482.9 | -1.1 | -1.0 | 22.7 | 481.8 | 1.0 |
| 34 | 1101 1110 | 491.250 | 492.5 | -0.9 | -1.1 | 9.6 | 497.7 | -5.2 |
| 35 | 1101 1101 | 506.875 | 517.1 | 0.8 | -0.0 | 24.6 | 513.6 | 3.5 |
| 36 | 1101 1100 | 522.500 | 529.7 | 1.1 | 1.0 | 12.6 | 529.5 | 0.2 |
| 37 | 1101 1011 | 538.125 | 548.3 | -0.9 | 0.0 | 18.6 | 545.3 | 3.0 |
| 38 | 1101 1010 | 553.750 | 560.3 | -1.0 | -1.0 | 12.0 | 561.2 | -0.9 |
| 39 | 1101 1001 | 569.375 | 584.9 | -0.1 | -1.0 | 24.6 | 577.1 | 7.9 |
| 40 | 1101 1000 | 585.000 | 590.5 | 1.1 | 0.9 | 5.6 | 593.0 | -2.4 |
| 41 | 1101 0111 | 600.625 | 609.4 | 0.8 | 0.8 | 18.8 | 608.8 | 0.5 |
| 42 | 1101 0110 | 616.250 | 622.2 | -1.1 | -0.0 | 12.8 | 624.7 | -2.5 |
| 43 | 1101 0101 | 631.875 | 645.9 | -1.0 | -1.1 | 23.7 | 640.6 | 5.3 |
| 44 | 1101 0100 | 647.500 | 660.7 | 1.0 | -0.0 | 14.7 | 656.4 | 4.2 |
| 45 | 1101 0011 | 663.125 | 674.9 | 1.0 | 1.0 | 14.3 | 672.3 | 2.6 |
| 46 | 1101 0010 | 678.750 | 689.4 | -0.1 | 0.9 | 14.4 | 688.2 | 1.2 |
| 47 | 1101 0001 | 694.375 | 712.6 | -1.1 | -1.0 | 23.2 | 704.1 | 8.5 |
| 48 | 1101 0000 | 710.000 | 725.4 | -1.0 | -1.0 | 12.8 | 719.9 | 5.4 |
| 49 | 1100 1111 | 725.625 | 735.8 | 0.9 | -0.1 | 10.5 | 735.8 | 0.0 |
| 50 | 1100 1110 | 741.250 | 745.8 | 1.0 | 1.0 | 10.0 | 751.7 | -5.9 |
| 51 | 1100 1101 | 756.875 | 772.0 | -1.0 | -0.1 | 26.2 | 767.5 | 4.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 704

1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9) 10/30/81

HAC
TEST
027

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 786.9 | -1.0 | -1.1 | 14.9 | 783.4 | 3.5 |
| 53 | 1100 1011 | 788.125 | 802.0 | -0.0 | -1.1 | 15.1 | 799.3 | 2.7 |
| 54 | 1100 1010 | 803.750 | 813.6 | 0.9 | 0.9 | 11.6 | 815.2 | -1.6 |
| 55 | 1100 1001 | 819.375 | 837.4 | 1.0 | 1.0 | 23.8 | 831.0 | 6.4 |
| 56 | 1100 1000 | 835.000 | 851.1 | -0.5 | -0.1 | 13.7 | 846.9 | 4.2 |
| 57 | 1100 0111 | 850.625 | 863.0 | -0.9 | -1.1 | 11.8 | 862.8 | 0.2 |
| 58 | 1100 0110 | 866.250 | 874.9 | 0.9 | 0.0 | 11.9 | 878.7 | -3.8 |
| 59 | 1100 0101 | 881.875 | 898.1 | 1.0 | 1.0 | 23.2 | 894.5 | 3.6 |
| 60 | 1100 0100 | 897.500 | 916.9 | 0.0 | 0.9 | 18.8 | 910.4 | 6.5 |
| 61 | 1100 0011 | 913.125 | 928.9 | -1.1 | -1.0 | 12.0 | 926.3 | 2.6 |
| 62 | 1100 0010 | 928.750 | 943.6 | -0.9 | -1.0 | 14.7 | 942.1 | 1.5 |
| 63 | 1100 0001 | 944.375 | 964.3 | 1.0 | -0.1 | 20.6 | 958.0 | 6.3 |
| 64 | 1100 0000 | 960.000 | 974.4 | 0.9 | 1.0 | 10.1 | 973.9 | 0.5 |
| 65 | 1011 1111 | 975.625 | 990.5 | -1.0 | -0.1 | 16.2 | 989.8 | 0.8 |
| 66 | 1011 1110 | 991.250 | 999.6 | -1.2 | -1.1 | 9.1 | 1005.6 | -6.0 |
| 67 | 1011 1101 | 1006.88 | 1025.2 | 0.0 | -0.9 | 25.5 | 1021.5 | 3.7 |
| 68 | 1011 1100 | 1022.50 | 1036.8 | 1.0 | 1.0 | 11.6 | 1037.4 | -0.5 |
| 69 | 1011 1011 | 1038.13 | 1055.9 | 1.0 | 1.0 | 19.1 | 1053.2 | 2.7 |
| 70 | 1011 1010 | 1053.75 | 1069.1 | -1.2 | -0.1 | 13.2 | 1069.1 | -0.0 |
| 71 | 1011 1001 | 1069.38 | 1091.8 | -1.0 | -1.0 | 22.7 | 1085.0 | 6.8 |
| 72 | 1011 1000 | 1085.00 | 1095.2 | 0.9 | -0.0 | 3.5 | 1100.9 | -5.6 |
| 73 | 1011 0111 | 1100.63 | 1116.6 | 1.0 | 1.0 | 21.3 | 1116.7 | -0.2 |
| 74 | 1011 0110 | 1116.25 | 1127.1 | -0.0 | 0.9 | 10.6 | 1132.6 | -5.5 |
| 75 | 1011 0101 | 1131.88 | 1152.1 | -1.0 | -1.1 | 24.9 | 1148.5 | 3.6 |
| 76 | 1011 0100 | 1147.50 | 1167.5 | -0.9 | -1.0 | 15.4 | 1164.4 | 3.1 |
| 77 | 1011 0011 | 1163.13 | 1182.0 | 0.8 | -0.1 | 14.5 | 1180.2 | 1.8 |
| 78 | 1011 0010 | 1178.75 | 1194.5 | 0.9 | 1.0 | 12.5 | 1196.1 | -1.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 705
 1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=9)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1217.7 | 0.0 | 1.2 | 23.2 | 1212.0 | 5.7 |
| 80 | 1011 0000 | 1210.00 | 1231.0 | -0.9 | -0.9 | 13.3 | 1227.8 | 3.1 |
| 81 | 1010 1111 | 1225.63 | 1243.2 | 0.0 | -1.4 | 12.2 | 1243.7 | -0.5 |
| 82 | 1010 1110 | 1241.25 | 1251.3 | 1.0 | 0.8 | 8.2 | 1259.6 | -8.2 |
| 83 | 1010 1101 | 1256.88 | 1276.6 | 1.1 | 1.1 | 25.2 | 1275.5 | 1.1 |
| 84 | 1010 1100 | 1272.50 | 1292.4 | -1.0 | -0.1 | 15.8 | 1291.3 | 1.1 |
| 85 | 1010 1011 | 1288.13 | 1309.2 | -1.0 | -1.1 | 16.8 | 1307.2 | 2.0 |
| 86 | 1010 1010 | 1303.75 | 1321.8 | -0.7 | -3.8 | 12.5 | 1323.1 | -1.3 |
| 87 | 1010 1001 | 1319.38 | 1343.2 | 1.0 | 1.1 | 21.4 | 1338.9 | 4.2 |
| 88 | 1010 1000 | 1335.00 | 1353.2 | 0.0 | 1.0 | 10.0 | 1354.8 | -1.7 |
| 89 | 1010 0111 | 1350.63 | 1369.9 | -1.0 | -1.0 | 16.7 | 1370.7 | -0.8 |
| 90 | 1010 0110 | 1366.25 | 1380.7 | -1.0 | -1.1 | 10.8 | 1386.6 | -5.8 |
| 91 | 1010 0101 | 1381.88 | 1403.4 | 0.9 | -0.1 | 22.7 | 1402.4 | 1.0 |
| 92 | 1010 0100 | 1397.50 | 1421.8 | 0.9 | 0.9 | 18.4 | 1418.3 | 3.5 |
| 93 | 1010 0011 | 1413.13 | 1433.8 | -0.0 | 1.0 | 12.0 | 1434.2 | -0.4 |
| 94 | 1010 0010 | 1428.75 | 1448.5 | -1.2 | -1.1 | 14.7 | 1450.0 | -1.6 |
| 95 | 1010 0001 | 1444.38 | 1471.1 | -0.0 | -1.1 | 22.7 | 1465.9 | 5.2 |
| 96 | 1010 0000 | 1460.00 | 1479.1 | 1.0 | 1.0 | 8.0 | 1481.8 | -2.7 |
| 97 | 1001 1111 | 1475.63 | 1494.8 | 1.0 | 1.0 | 15.7 | 1497.7 | -2.8 |
| 98 | 1001 1110 | 1491.25 | 1504.5 | -1.0 | -0.1 | 9.7 | 1513.5 | -9.0 |
| 99 | 1001 1101 | 1506.88 | 1530.1 | -1.0 | -1.1 | 25.6 | 1529.4 | 0.7 |
| 100 | 1001 1100 | 1522.50 | 1543.0 | -0.1 | -1.0 | 12.9 | 1545.3 | -2.3 |
| 101 | 1001 1011 | 1538.13 | 1560.8 | 1.1 | 1.0 | 17.8 | 1561.2 | -0.3 |
| 102 | 1001 1010 | 1553.75 | 1570.5 | -0.1 | 1.1 | 9.7 | 1577.0 | -6.5 |
| 103 | 1001 1001 | 1569.38 | 1596.7 | -0.9 | -1.0 | 26.2 | 1592.9 | 3.8 |
| 104 | 1001 1000 | 1585.00 | 1602.5 | -1.0 | -1.0 | 5.8 | 1608.8 | -6.3 |

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IS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 706

.981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9)

HAC
TEST
527

NOV 30 '81

| THRESHOLD
NUMBER | A/D
OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|----------------------------|------------------------|---------------------------|----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1621.7 | 1.0 | -0.0 | 19.1 | 1624.6 | -3.0 |
| 106 | 1001 0110 | 1616.25 | 1631.9 | 1.0 | 1.1 | 10.2 | 1640.5 | -8.7 |
| 107 | 1001 0101 | 1631.88 | 1656.0 | -0.1 | 1.0 | 24.2 | 1656.4 | -0.4 |
| 108 | 1001 0100 | 1647.50 | 1672.5 | -1.0 | -1.0 | 16.5 | 1672.3 | 0.3 |
| 109 | 1001 0011 | 1663.13 | 1687.4 | -0.1 | -1.2 | 14.9 | 1688.1 | -0.7 |
| 110 | 1001 0010 | 1678.75 | 1699.0 | 0.9 | 0.9 | 11.5 | 1704.0 | -5.0 |
| 111 | 1001 0001 | 1694.38 | 1722.7 | 1.0 | 1.0 | 23.7 | 1719.9 | 2.8 |
| 112 | 1001 0000 | 1710.00 | 1739.5 | -0.9 | 0.0 | 16.8 | 1735.7 | 3.8 |
| 113 | 1000 1111 | 1725.63 | 1748.1 | -1.0 | -1.1 | 8.6 | 1751.6 | -3.5 |
| 114 | 1000 1110 | 1741.25 | 1757.0 | 0.0 | -1.0 | 8.9 | 1767.5 | -10.5 |
| 115 | 1000 1101 | 1756.88 | 1781.3 | 1.0 | 0.9 | 24.3 | 1783.4 | -2.0 |
| 116 | 1000 1100 | 1772.50 | 1796.2 | 0.0 | 1.0 | 14.9 | 1799.2 | -3.0 |
| 117 | 1000 1011 | 1788.13 | 1813.6 | -1.1 | -1.0 | 17.4 | 1815.1 | -1.5 |
| 118 | 1000 1010 | 1803.75 | 1823.3 | -0.9 | -1.0 | 9.7 | 1831.0 | -7.7 |
| 119 | 1000 1001 | 1819.38 | 1847.9 | 1.0 | -0.0 | 24.6 | 1846.9 | 1.1 |
| 120 | 1000 1000 | 1835.00 | 1861.2 | 1.1 | 1.1 | 13.3 | 1862.7 | -1.5 |
| 121 | 1000 0111 | 1850.63 | 1873.6 | 0.0 | 1.0 | 12.4 | 1878.6 | -5.0 |
| 122 | 1000 0110 | 1866.25 | 1885.3 | -1.1 | -1.1 | 11.7 | 1894.5 | -9.1 |
| 123 | 1000 0101 | 1881.88 | 1909.1 | 0.0 | -1.0 | 23.8 | 1910.3 | -1.2 |
| 124 | 1000 0100 | 1897.50 | 1926.6 | 0.9 | 0.9 | 17.5 | 1926.2 | 0.4 |
| 125 | 1000 0011 | 1913.13 | 1938.2 | 1.0 | 1.0 | 11.6 | 1942.1 | -3.8 |
| 126 | 1000 0010 | 1928.75 | 1952.6 | -1.0 | 0.0 | 14.3 | 1958.0 | -5.4 |
| 127 | 1000 0001 | 1944.38 | 1975.6 | -1.0 | -1.1 | 23.0 | 1973.8 | 1.8 |
| 128 | 1000 0000 | 1960.00 | 1993.6 | 0.0 | -0.9 | 18.0 | 1989.7 | 3.9 |
| 129 | 0111 1111 | 1975.63 | 2005.7 | 1.0 | 1.0 | 12.1 | 2005.6 | 0.2 |
| 130 | 0111 1110 | 1991.25 | 2015.2 | 0.0 | 1.0 | 9.5 | 2021.4 | -6.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 707

1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9)



NO. 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2041.3 | -1.1 | -1.0 | 26.0 | 2037.3 | 4.0 |
| 132 | 0111 1100 | 2022.50 | 2054.8 | -1.0 | -1.0 | 13.5 | 2053.2 | 1.6 |
| 133 | 0111 1011 | 2038.13 | 2072.1 | 0.7 | 0.0 | 17.3 | 2069.1 | 3.1 |
| 134 | 0111 1010 | 2053.75 | 2085.2 | 1.1 | 1.1 | 13.0 | 2084.9 | 0.2 |
| 135 | 0111 1001 | 2069.38 | 2106.8 | -0.0 | 1.1 | 21.6 | 2100.8 | 5.9 |
| 136 | 0111 1000 | 2085.00 | 2111.3 | -1.0 | -1.0 | 4.5 | 2116.7 | -5.4 |
| 137 | 0111 0111 | 2100.63 | 2133.8 | 0.0 | -1.1 | 22.5 | 2132.6 | 1.3 |
| 138 | 0111 0110 | 2116.25 | 2143.0 | 1.0 | 0.9 | 9.2 | 2148.4 | -5.4 |
| 139 | 0111 0101 | 2131.88 | 2167.2 | 1.0 | 1.0 | 24.2 | 2164.3 | 2.9 |
| 140 | 0111 0100 | 2147.50 | 2184.7 | -1.0 | -0.0 | 17.6 | 2180.7 | 4.6 |
| 141 | 0111 0011 | 2163.13 | 2199.9 | -1.0 | -1.0 | 15.1 | 2196.0 | 3.9 |
| 142 | 0111 0010 | 2178.75 | 2210.6 | -0.0 | -1.0 | 10.7 | 2211.9 | -1.3 |
| 143 | 0111 0001 | 2194.38 | 2234.1 | 1.0 | 1.0 | 23.5 | 2227.8 | 6.3 |
| 144 | 0111 0000 | 2210.00 | 2244.4 | 0.0 | 1.0 | 10.3 | 2243.7 | 0.7 |
| 145 | 0110 1111 | 2225.63 | 2259.4 | -1.0 | -0.9 | 15.0 | 2259.5 | -0.1 |
| 146 | 0110 1110 | 2241.25 | 2268.5 | -0.9 | -1.3 | 9.1 | 2275.4 | -6.9 |
| 147 | 0110 1101 | 2256.88 | 2292.9 | 1.0 | -0.1 | 24.3 | 2291.3 | 1.6 |
| 148 | 0110 1100 | 2272.50 | 2309.8 | 1.0 | 1.0 | 16.9 | 2307.1 | 2.6 |
| 149 | 0110 1011 | 2288.13 | 2324.7 | -0.0 | 1.0 | 14.9 | 2323.0 | 1.6 |
| 150 | 0110 1010 | 2303.75 | 2339.7 | -1.0 | -1.0 | 15.0 | 2338.9 | 0.8 |
| 151 | 0110 1001 | 2319.38 | 2360.3 | -0.0 | -1.1 | 20.6 | 2354.8 | 5.6 |
| 152 | 0110 1000 | 2335.00 | 2367.4 | 1.0 | 1.1 | 7.0 | 2370.6 | -6.3 |
| 153 | 0110 0111 | 2350.63 | 2385.2 | 1.0 | 1.0 | 17.9 | 2386.5 | -1.3 |
| 154 | 0110 0110 | 2366.25 | 2396.7 | -1.3 | -0.1 | 11.5 | 2402.4 | -5.7 |
| 155 | 0110 0101 | 2381.88 | 2420.6 | -1.1 | -1.0 | 23.9 | 2418.3 | 2.4 |
| 156 | 0110 0100 | 2397.50 | 2440.5 | 0.0 | -1.0 | 19.8 | 2434.1 | 6.3 |
| 157 | 0110 0011 | 2413.13 | 2451.1 | 0.9 | 0.9 | 10.6 | 2450.0 | 1.1 |

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8-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 708

081/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9) NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2462.7 | 0.0 | 0.9 | 11.6 | 2465.9 | -3.2 |
| 159 | 0110 0001 | 2444.38 | 2487.4 | -1.1 | -1.1 | 24.8 | 2481.7 | 5.7 |
| 160 | 0110 0000 | 2460.00 | 2493.7 | -1.3 | -1.3 | 6.3 | 2497.6 | -3.9 |
| 161 | 0101 1111 | 2475.63 | 2511.4 | 1.0 | -0.0 | 17.7 | 2513.5 | -2.1 |
| 162 | 0101 1110 | 2491.25 | 2520.3 | 0.9 | 0.9 | 8.8 | 2529.4 | -9.1 |
| 163 | 0101 1101 | 2506.88 | 2545.8 | -0.0 | 1.0 | 25.5 | 2545.2 | 0.6 |
| 164 | 0101 1100 | 2522.50 | 2561.1 | -1.0 | -0.9 | 15.2 | 2561.1 | -0.0 |
| 165 | 0101 1011 | 2538.13 | 2578.8 | -1.1 | -1.1 | 17.7 | 2577.0 | 1.8 |
| 166 | 0101 1010 | 2553.75 | 2590.3 | 1.0 | 1.1 | 11.5 | 2592.8 | -2.5 |
| 167 | 0101 1001 | 2569.38 | 2612.0 | 1.0 | 1.0 | 21.7 | 2608.7 | 3.3 |
| 168 | 0101 1000 | 2585.00 | 2620.1 | -1.0 | 0.0 | 8.0 | 2624.6 | -4.5 |
| 169 | 0101 0111 | 2600.63 | 2639.5 | -1.1 | -1.1 | 19.4 | 2640.5 | -1.0 |
| 170 | 0101 0110 | 2616.25 | 2649.1 | -0.0 | -1.1 | 9.7 | 2656.3 | -7.2 |
| 171 | 0101 0101 | 2631.88 | 2672.6 | 1.0 | 1.0 | 23.4 | 2672.2 | 0.4 |
| 172 | 0101 0100 | 2647.50 | 2689.7 | 1.0 | 1.0 | 17.1 | 2688.1 | 1.6 |
| 173 | 0101 0011 | 2663.13 | 2705.3 | -1.1 | -1.1 | 15.6 | 2703.9 | 1.4 |
| 174 | 0101 0010 | 2678.75 | 2715.2 | -1.1 | -1.1 | 9.9 | 2719.8 | -4.6 |
| 175 | 0101 0001 | 2694.38 | 2739.4 | 1.0 | 0.0 | 24.2 | 2735.7 | 3.7 |
| 176 | 0101 0000 | 2710.00 | 2753.3 | 1.0 | 1.0 | 13.9 | 2751.6 | 1.8 |
| 177 | 0100 1111 | 2725.63 | 2764.0 | 0.0 | 1.0 | 10.7 | 2767.4 | -3.4 |
| 178 | 0100 1110 | 2741.25 | 2774.0 | -1.4 | -1.2 | 9.9 | 2783.3 | -9.3 |
| 179 | 0100 1101 | 2756.88 | 2799.4 | -1.1 | -1.1 | 25.4 | 2799.2 | 0.2 |
| 180 | 0100 1100 | 2772.50 | 2814.9 | 1.1 | 1.0 | 15.5 | 2815.1 | -0.1 |
| 181 | 0100 1011 | 2788.13 | 2830.2 | 0.8 | 0.8 | 15.3 | 2830.9 | -0.7 |
| 182 | 0100 1010 | 2803.75 | 2844.7 | -1.3 | -0.0 | 14.4 | 2846.8 | -2.1 |
| 183 | 0100 1001 | 2819.38 | 2865.7 | -1.0 | -0.9 | 21.0 | 2862.7 | 3.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FL1. S/N 3 PAGE 709

1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=9



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2878.4 | 0.0 | -1.0 | 12.7 | 2878.5 | -0.2 |
| 185 | 0100 0111 | 2850.63 | 2891.0 | 1.1 | 0.9 | 12.6 | 2894.4 | -3.4 |
| 186 | 0100 0110 | 2866.25 | 2901.1 | 0.9 | 1.0 | 10.1 | 2910.3 | -9.2 |
| 187 | 0100 0101 | 2881.88 | 2926.2 | -1.1 | -1.0 | 25.1 | 2926.2 | 0.0 |
| 188 | 0100 0100 | 2897.50 | 2946.5 | -1.1 | -1.2 | 20.3 | 2942.0 | 4.4 |
| 189 | 0100 0011 | 2913.13 | 2956.8 | 1.0 | -0.0 | 10.4 | 2957.9 | -1.1 |
| 190 | 0100 0010 | 2928.75 | 2968.4 | 0.1 | 0.2 | 11.6 | 2973.8 | -5.4 |
| 191 | 0100 0001 | 2944.38 | 2992.2 | -0.1 | 1.0 | 23.8 | 2989.6 | 2.6 |
| 192 | 0100 0000 | 2960.00 | 3005.7 | -0.0 | 0.2 | 13.5 | 3005.5 | 0.2 |
| 193 | 0011 1111 | 2975.63 | 3018.5 | -1.1 | -1.1 | 12.8 | 3021.4 | -2.9 |
| 194 | 0011 1110 | 2991.25 | 3025.6 | 1.0 | 1.0 | 7.1 | 3037.3 | -11.6 |
| 195 | 0011 1101 | 3006.88 | 3052.0 | 1.0 | 1.1 | 26.4 | 3053.1 | -1.1 |
| 196 | 0011 1100 | 3022.50 | 3066.3 | -1.4 | -1.4 | 14.3 | 3069.0 | -2.7 |
| 197 | 0011 1011 | 3038.13 | 3085.2 | -1.1 | -1.0 | 18.9 | 3084.9 | 0.3 |
| 198 | 0011 1010 | 3053.75 | 3097.2 | -0.0 | -1.1 | 12.0 | 3100.8 | -3.6 |
| 199 | 0011 1001 | 3069.38 | 3118.6 | 1.0 | 1.1 | 21.4 | 3116.6 | 1.9 |
| 200 | 0011 1000 | 3085.00 | 3122.1 | 1.0 | 1.0 | 3.5 | 3132.5 | -10.4 |
| 201 | 0011 0111 | 3100.63 | 3145.6 | -0.6 | -0.4 | 23.5 | 3148.4 | -2.8 |
| 202 | 0011 0110 | 3116.25 | 3155.7 | -1.2 | -1.3 | 10.1 | 3164.2 | -8.6 |
| 203 | 0011 0101 | 3131.88 | 3179.7 | 1.0 | 0.0 | 24.0 | 3180.1 | -0.4 |
| 204 | 0011 0100 | 3147.50 | 3195.9 | 1.0 | 1.1 | 16.2 | 3196.0 | -0.1 |
| 205 | 0011 0011 | 3163.13 | 3211.9 | -0.0 | 1.0 | 16.0 | 3211.9 | -0.0 |
| 206 | 0011 0010 | 3178.75 | 3227.4 | -1.3 | -1.2 | 15.5 | 3227.7 | -0.4 |
| 207 | 0011 0001 | 3194.38 | 3247.9 | -1.3 | -1.2 | 20.5 | 3243.6 | 4.3 |
| 208 | 0011 0000 | 3210.00 | 3259.9 | 0.9 | 0.0 | 12.0 | 3259.5 | 0.4 |
| 209 | 0010 1111 | 3225.63 | 3271.8 | 1.0 | 1.0 | 11.9 | 3275.3 | -3.5 |

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4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 710

1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9)

HAC
1591
527

11/30/81

| THRESHOLD
NUMBER | A/D
OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|----------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3281.5 | -1.0 | -0.0 | 9.6 | 3291.2 | -9.7 |
| 211 | 0010 1101 | 3256.88 | 3307.5 | -1.3 | -1.1 | 26.0 | 3307.1 | 0.5 |
| 212 | 0010 1100 | 3272.50 | 3322.9 | 1.0 | 0.0 | 15.4 | 3323.0 | -0.0 |
| 213 | 0010 1011 | 3288.13 | 3338.7 | 0.4 | 0.4 | 15.8 | 3338.8 | -0.1 |
| 214 | 0010 1010 | 3303.75 | 3351.5 | 1.3 | 1.3 | 12.7 | 3354.7 | -3.2 |
| 215 | 0010 1001 | 3319.38 | 3374.3 | -1.2 | 0.1 | 22.8 | 3370.6 | 3.7 |
| 216 | 0010 1000 | 3335.00 | 3383.5 | -1.1 | -1.0 | 9.2 | 3386.5 | -3.0 |
| 217 | 0010 0111 | 3350.63 | 3399.8 | 1.1 | 0.0 | 16.3 | 3402.3 | -2.5 |
| 218 | 0010 0110 | 3366.25 | 3409.4 | 1.1 | 1.0 | 9.6 | 3418.2 | -8.8 |
| 219 | 0010 0101 | 3381.88 | 3434.5 | -0.2 | 1.1 | 25.0 | 3434.1 | 0.4 |
| 220 | 0010 0100 | 3397.50 | 3455.1 | -1.1 | -1.0 | 20.6 | 3449.9 | 5.2 |
| 221 | 0010 0011 | 3413.13 | 3467.7 | -1.1 | -1.2 | 12.6 | 3465.8 | 1.9 |
| 222 | 0010 0010 | 3428.75 | 3476.1 | 1.0 | 0.1 | 8.4 | 3481.7 | -5.6 |
| 223 | 0010 0001 | 3444.38 | 3502.0 | 0.9 | 1.0 | 26.0 | 3497.6 | 4.5 |
| 224 | 0010 0000 | 3460.00 | 3514.1 | -1.3 | 0.0 | 12.0 | 3513.4 | 0.6 |
| 225 | 0001 1111 | 3475.63 | 3528.6 | -1.1 | -1.0 | 14.5 | 3529.3 | -0.7 |
| 226 | 0001 1110 | 3491.25 | 3536.3 | -0.0 | -1.1 | 7.7 | 3545.2 | -0.9 |
| 227 | 0001 1101 | 3506.88 | 3562.3 | 0.9 | 1.0 | 26.0 | 3561.0 | 1.3 |
| 228 | 0001 1100 | 3522.50 | 3576.3 | 0.9 | 1.0 | 14.0 | 3576.9 | -0.6 |
| 229 | 0001 1011 | 3538.13 | 3595.9 | -1.1 | 0.0 | 19.6 | 3592.8 | 3.2 |
| 230 | 0001 1010 | 3553.75 | 3607.6 | -1.2 | -1.1 | 11.6 | 3608.7 | -1.1 |
| 231 | 0001 1001 | 3569.38 | 3629.6 | 0.7 | 0.0 | 22.0 | 3624.5 | 5.1 |
| 232 | 0001 1000 | 3585.00 | 3636.4 | 0.9 | 1.0 | 6.9 | 3640.4 | -4.0 |
| 233 | 0001 0111 | 3600.63 | 3656.4 | -0.2 | 1.1 | 20.0 | 3656.3 | 0.2 |
| 234 | 0001 0110 | 3616.25 | 3666.5 | -1.2 | -1.0 | 10.1 | 3672.7 | -5.6 |
| 235 | 0001 0101 | 3631.88 | 3692.1 | -1.1 | -1.1 | 25.6 | 3688.0 | 4.1 |
| 236 | 0001 0100 | 3647.50 | 3707.9 | 0.9 | 0.0 | 15.8 | 3703.9 | 4.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 711

1981/11/30 16:24:51 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=9)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3723.6 | 0.9 | 1.0 | 15.7 | 3719.8 | 3.8 |
| 238 | 0001 0010 | 3678.75 | 3738.4 | -1.3 | 0.0 | 14.9 | 3735.6 | 7.8 |
| 239 | 0001 0001 | 3694.38 | 3759.8 | -1.2 | -1.1 | 21.4 | 3751.5 | 8.3 |
| 240 | 0001 0000 | 3710.00 | 3776.8 | -0.1 | -1.0 | 17.0 | 3767.4 | 9.5 |
| 241 | 0000 1111 | 3725.63 | 3784.1 | 1.0 | 1.0 | 7.3 | 3783.3 | 0.9 |
| 242 | 0000 1110 | 3741.25 | 3792.3 | 1.0 | 0.9 | 8.2 | 3799.1 | -6.8 |
| 243 | 0000 1101 | 3756.88 | 3820.0 | -1.2 | 0.1 | 27.7 | 3815.0 | 5.0 |
| 244 | 0000 1100 | 3772.50 | 3835.8 | -1.2 | -1.2 | 15.9 | 3830.9 | 5.0 |
| 245 | 0000 1011 | 3788.13 | 3851.5 | 1.1 | 0.0 | 15.7 | 3846.7 | 4.8 |
| 246 | 0000 1010 | 3803.75 | 3863.5 | 1.2 | 0.9 | 12.0 | 3862.6 | 0.9 |
| 247 | 0000 1001 | 3819.38 | 3886.4 | -0.3 | 1.0 | 22.8 | 3878.5 | 7.9 |
| 248 | 0000 1000 | 3835.00 | 3901.2 | -1.1 | -1.1 | 14.8 | 3894.4 | 6.9 |
| 249 | 0000 0111 | 3850.63 | 3914.5 | -1.1 | -1.2 | 13.3 | 3910.2 | 4.3 |
| 250 | 0000 0110 | 3866.25 | 3922.7 | 1.0 | -0.0 | 8.7 | 3926.1 | -3.4 |
| 251 | 0000 0101 | 3881.88 | 3948.1 | 0.9 | 1.1 | 25.3 | 3942.0 | 6.1 |
| 252 | 0000 0100 | 3897.50 | 3968.3 | -0.8 | 0.0 | 20.2 | 3957.8 | 10.5 |
| 253 | 0000 0011 | 3913.13 | 3981.6 | -1.1 | -1.1 | 13.3 | 3973.7 | 7.9 |
| 254 | 0000 0010 | 3928.75 | 3990.6 | -0.1 | -1.0 | 9.0 | 3989.6 | 1.0 |
| 255 | 0000 0001 | 3944.38 | 4016.3 | 0.5 | 0.5 | 25.6 | 4005.5 | 10.8 |

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FLT. S/N 3 PAGE 712
 1981/11/30 16:31:13 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)
 S U M M A R Y



NOV 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.898X - 41.6MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.746%
 OFFSET IS:-41.6MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998770$
 ANALOG INPUT DURING DC RESTORE IS:64.5MV

RMS ERROR = 4.191MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|--|-------------|----------|---------|-------------|--------------------|
| 27.8MV | 227 | 15.960MV | 3.1MV | 136 | 5.643MV |
| LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 1.2MV | 221 | -0.077MV | -1.6MV | 184 | .940MV |
| UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 1.2MV | 221 | -0.009MV | -1.6MV | 172 | .887MV |

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 713

1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)



REV 30 '81

| THRESHOLD
NUMBER | A/D
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -29.8 | 0.7 | 1.0 | | -25.7 | -4.1 |
| 2 | 1111 1110 | -8.750 | -18.7 | -0.1 | 0.9 | 11.1 | -9.8 | -8.9 |
| 3 | 1111 1101 | 6.875 | 6.7 | -1.0 | -0.9 | 25.4 | 6.1 | 0.6 |
| 4 | 1111 1100 | 22.500 | 19.5 | -0.1 | -0.9 | 12.8 | 22.0 | -2.5 |
| 5 | 1111 1011 | 38.125 | 37.0 | 0.8 | 0.9 | 17.5 | 37.9 | -0.9 |
| 6 | 1111 1010 | 53.750 | 50.8 | -0.6 | -0.5 | 13.9 | 53.8 | -2.9 |
| 7 | 1111 1001 | 69.375 | 74.0 | -1.0 | 0.0 | 23.2 | 69.7 | 4.4 |
| 8 | 1111 1000 | 85.000 | 78.2 | -1.0 | -0.9 | 4.2 | 85.6 | -7.4 |
| 9 | 1111 0111 | 100.625 | 99.9 | -0.1 | -0.9 | 21.7 | 101.5 | -1.6 |
| 10 | 1111 0110 | 116.250 | 111.9 | 0.8 | 0.9 | 12.0 | 117.4 | -5.5 |
| 11 | 1111 0101 | 131.875 | 134.4 | -0.1 | 0.9 | 22.5 | 133.3 | 1.2 |
| 12 | 1111 0100 | 147.500 | 151.3 | -1.0 | -0.9 | 16.8 | 149.2 | 2.1 |
| 13 | 1111 0011 | 163.125 | 166.2 | -1.0 | -0.9 | 15.0 | 165.0 | 1.2 |
| 14 | 1111 0010 | 178.750 | 180.3 | 0.9 | -0.1 | 14.0 | 180.9 | -0.7 |
| 15 | 1111 0001 | 194.375 | 201.7 | 0.8 | 0.9 | 21.4 | 196.8 | 4.8 |
| 16 | 1111 0000 | 210.000 | 210.7 | 0.0 | 0.8 | 9.0 | 212.7 | -2.0 |
| 17 | 1110 1111 | 225.625 | 227.3 | -1.0 | -0.9 | 16.5 | 228.6 | -1.4 |
| 18 | 1110 1110 | 241.250 | 238.6 | -0.0 | -1.0 | 11.4 | 244.5 | -5.9 |
| 19 | 1110 1101 | 256.875 | 261.9 | 0.9 | 1.0 | 23.2 | 260.4 | 1.4 |
| 20 | 1110 1100 | 272.500 | 276.7 | 0.9 | 0.9 | 14.9 | 276.3 | 0.4 |
| 21 | 1110 1011 | 288.125 | 293.8 | -1.0 | -0.1 | 17.0 | 292.2 | 1.6 |
| 22 | 1110 1010 | 303.750 | 306.8 | -1.0 | -1.0 | 13.0 | 308.1 | -1.3 |
| 23 | 1110 1001 | 319.375 | 330.0 | -0.1 | -0.9 | 23.2 | 324.0 | 6.0 |
| 24 | 1110 1000 | 335.000 | 339.5 | 0.8 | 0.8 | 9.4 | 339.9 | -0.5 |
| 25 | 1110 0111 | 350.625 | 354.8 | -0.1 | 1.0 | 15.3 | 355.8 | -1.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 714
 1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=10)



NO 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 369.1 | -1.0 | -1.0 | 14.3 | 371.7 | -2.7 |
| 27 | 1110 0101 | 381.875 | 391.2 | -1.0 | -0.9 | 22.2 | 387.6 | 3.6 |
| 28 | 1110 0100 | 397.500 | 408.8 | 0.8 | -0.1 | 17.6 | 403.5 | 5.3 |
| 29 | 1110 0011 | 413.125 | 421.0 | 0.8 | 0.9 | 12.2 | 419.4 | 1.6 |
| 30 | 1110 0010 | 428.750 | 436.4 | -0.0 | 1.0 | 15.4 | 435.3 | 1.1 |
| 31 | 1110 0001 | 444.375 | 458.4 | -0.9 | -0.9 | 22.0 | 451.2 | 7.2 |
| 32 | 1110 0000 | 460.000 | 464.4 | 0.0 | -0.9 | 6.0 | 467.1 | -2.7 |
| 33 | 1101 1111 | 475.625 | 482.5 | 0.9 | 1.0 | 18.1 | 483.0 | -0.5 |
| 34 | 1101 1110 | 491.250 | 493.1 | 0.9 | 0.9 | 10.6 | 498.9 | -5.8 |
| 35 | 1101 1101 | 506.875 | 519.0 | -1.0 | -0.0 | 25.8 | 514.8 | 4.2 |
| 36 | 1101 1100 | 522.500 | 531.7 | -1.0 | -1.0 | 12.7 | 530.7 | 1.0 |
| 37 | 1101 1011 | 538.125 | 550.0 | -0.0 | -1.1 | 18.3 | 546.6 | 3.4 |
| 38 | 1101 1010 | 553.750 | 560.6 | -1.0 | 0.9 | 10.6 | 562.5 | -1.9 |
| 39 | 1101 1001 | 569.375 | 584.9 | -0.1 | 0.9 | 24.3 | 578.4 | 6.5 |
| 40 | 1101 1000 | 585.000 | 592.3 | -1.0 | -1.0 | 7.3 | 594.3 | -2.0 |
| 41 | 1101 0111 | 600.625 | 611.7 | -1.0 | -0.9 | 19.4 | 610.2 | 1.5 |
| 42 | 1101 0110 | 616.250 | 623.2 | 1.0 | -0.0 | 11.5 | 626.1 | -2.9 |
| 43 | 1101 0101 | 631.875 | 646.2 | 0.8 | 0.9 | 23.0 | 642.0 | 4.2 |
| 44 | 1101 0100 | 647.500 | 661.9 | -0.1 | 0.9 | 15.7 | 657.9 | 4.0 |
| 45 | 1101 0011 | 663.125 | 677.4 | -0.8 | -0.8 | 15.5 | 673.8 | 3.6 |
| 46 | 1101 0010 | 678.750 | 692.2 | -0.0 | -0.9 | 14.8 | 689.7 | 2.5 |
| 47 | 1101 0001 | 694.375 | 713.1 | 0.9 | 0.9 | 20.9 | 705.6 | 7.5 |
| 48 | 1101 0000 | 710.000 | 725.4 | 0.8 | 0.8 | 12.4 | 721.5 | 4.0 |
| 49 | 1100 1111 | 725.625 | 737.3 | -1.0 | 0.0 | 12.9 | 737.4 | 0.9 |
| 50 | 1100 1110 | 741.250 | 749.3 | -1.0 | -1.0 | 11.0 | 753.3 | -4.0 |
| 51 | 1100 1101 | 756.875 | 773.6 | 0.0 | -0.9 | 24.3 | 769.2 | 4.4 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 715

1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 787.6 | 0.9 | 0.9 | 14.0 | 785.1 | 2.5 |
| 53 | 1100 1011 | 788.125 | 803.1 | 1.0 | 0.9 | 15.5 | 801.0 | 2.1 |
| 54 | 1100 1010 | 803.750 | 816.5 | -0.9 | -0.9 | 13.4 | 816.9 | -0.4 |
| 55 | 1100 1001 | 819.375 | 840.1 | -1.0 | -0.9 | 23.6 | 832.8 | 7.4 |
| 56 | 1100 1000 | 835.000 | 852.2 | 0.8 | -0.0 | 12.1 | 848.7 | 3.5 |
| 57 | 1100 0111 | 850.625 | 864.8 | 1.0 | 1.0 | 12.6 | 864.6 | 0.2 |
| 58 | 1100 0110 | 866.250 | 877.6 | -0.1 | 1.0 | 12.8 | 880.5 | -2.8 |
| 59 | 1100 0101 | 881.875 | 901.0 | -0.9 | -0.9 | 23.4 | 896.4 | 4.7 |
| 60 | 1100 0100 | 897.500 | 919.2 | -0.7 | -0.7 | 18.2 | 912.2 | 6.9 |
| 61 | 1100 0011 | 913.125 | 930.1 | 0.9 | 1.0 | 10.9 | 928.1 | 2.0 |
| 62 | 1100 0010 | 928.750 | 945.3 | 0.9 | 0.9 | 15.2 | 944.0 | 1.3 |
| 63 | 1100 0001 | 944.375 | 967.5 | -1.0 | -0.0 | 22.2 | 959.9 | 7.6 |
| 64 | 1100 0000 | 960.000 | 977.0 | -0.8 | -0.8 | 9.5 | 975.8 | 1.2 |
| 65 | 1011 1111 | 975.625 | 992.6 | 0.0 | -1.0 | 15.6 | 991.7 | 0.9 |
| 66 | 1011 1110 | 991.250 | 1001.3 | 0.9 | 0.9 | 8.7 | 1007.6 | -6.3 |
| 67 | 1011 1101 | 1006.88 | 1026.8 | 0.9 | 0.9 | 25.5 | 1023.5 | 3.3 |
| 68 | 1011 1100 | 1022.50 | 1040.2 | -0.9 | -1.0 | 13.3 | 1039.4 | 0.7 |
| 69 | 1011 1011 | 1038.13 | 1059.1 | -0.9 | -0.9 | 18.9 | 1055.3 | 3.8 |
| 70 | 1011 1010 | 1053.75 | 1070.5 | 0.9 | -0.0 | 11.4 | 1071.2 | -0.7 |
| 71 | 1011 1001 | 1069.38 | 1093.1 | 1.0 | 1.0 | 22.6 | 1087.1 | 6.0 |
| 72 | 1011 1000 | 1085.00 | 1096.7 | -0.1 | 1.0 | 3.6 | 1103.0 | -6.3 |
| 73 | 1011 0111 | 1100.63 | 1119.9 | -0.9 | -1.0 | 23.2 | 1118.9 | 1.0 |
| 74 | 1011 0110 | 1116.25 | 1131.5 | -1.1 | -0.9 | 11.6 | 1134.8 | -3.3 |
| 75 | 1011 0101 | 1131.88 | 1153.9 | 0.9 | 1.0 | 22.4 | 1150.7 | 3.2 |
| 76 | 1011 0100 | 1147.50 | 1169.4 | 0.9 | 0.8 | 15.4 | 1166.6 | 2.8 |
| 77 | 1011 0011 | 1163.13 | 1186.1 | -1.0 | -0.0 | 16.8 | 1182.5 | 3.6 |
| 78 | 1011 0010 | 1178.75 | 1198.5 | -0.9 | -0.9 | 12.3 | 1198.4 | 0.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 716
 1981/11/30 14:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)



01/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1221.4 | -0.0 | -1.0 | 22.9 | 1214.3 | 7.1 |
| 80 | 1011 0000 | 1210.00 | 1232.1 | 0.8 | 0.9 | 10.7 | 1230.2 | 1.9 |
| 81 | 1010 1111 | 1225.63 | 1244.7 | 1.0 | 1.0 | 12.6 | 1246.1 | -1.4 |
| 82 | 1010 1110 | 1241.25 | 1255.6 | -1.0 | -1.0 | 10.9 | 1262.0 | -6.4 |
| 83 | 1010 1101 | 1256.88 | 1280.7 | -0.9 | -1.0 | 25.1 | 1277.9 | 2.8 |
| 84 | 1010 1100 | 1272.50 | 1294.4 | 0.9 | -0.0 | 13.6 | 1293.8 | 0.6 |
| 85 | 1010 1011 | 1288.13 | 1311.0 | 1.0 | 1.0 | 16.6 | 1309.7 | 1.3 |
| 86 | 1010 1010 | 1303.75 | 1323.7 | 0.0 | 0.8 | 12.7 | 1325.6 | -1.9 |
| 87 | 1010 1001 | 1319.38 | 1346.8 | -0.9 | -0.9 | 23.1 | 1341.5 | 5.3 |
| 88 | 1010 1000 | 1335.00 | 1357.7 | -0.9 | -0.9 | 10.8 | 1357.4 | 0.3 |
| 89 | 1010 0111 | 1350.63 | 1371.7 | 1.0 | 1.0 | 14.0 | 1373.3 | -1.6 |
| 90 | 1010 0110 | 1366.25 | 1383.5 | 1.0 | 0.8 | 11.8 | 1389.2 | -5.7 |
| 91 | 1010 0101 | 1381.88 | 1407.6 | -1.0 | -0.0 | 24.1 | 1405.1 | 2.5 |
| 92 | 1010 0100 | 1397.50 | 1425.4 | -1.0 | -1.1 | 17.9 | 1421.0 | 4.5 |
| 93 | 1010 0011 | 1413.13 | 1438.6 | 0.0 | -1.0 | 13.2 | 1436.9 | 1.8 |
| 94 | 1010 0010 | 1428.75 | 1450.8 | 0.8 | 0.7 | 12.1 | 1452.8 | -2.0 |
| 95 | 1010 0001 | 1444.38 | 1473.0 | 1.0 | 1.0 | 22.2 | 1468.7 | 4.3 |
| 96 | 1010 0000 | 1460.00 | 1483.7 | -0.9 | -0.9 | 10.7 | 1484.6 | -0.9 |
| 97 | 1001 1111 | 1475.63 | 1498.6 | -0.9 | -0.9 | 14.9 | 1500.5 | -1.8 |
| 98 | 1001 1110 | 1491.25 | 1507.0 | 0.9 | -0.1 | 8.3 | 1516.4 | -9.4 |
| 99 | 1001 1101 | 1506.88 | 1532.9 | 1.0 | 1.0 | 25.9 | 1532.3 | 0.6 |
| 100 | 1001 1100 | 1522.50 | 1545.0 | -0.1 | 0.9 | 12.1 | 1548.2 | -3.2 |
| 101 | 1001 1011 | 1538.13 | 1565.0 | -1.0 | -1.0 | 20.0 | 1564.1 | 0.9 |
| 102 | 1001 1010 | 1553.75 | 1576.7 | -0.9 | -0.9 | 11.7 | 1580.0 | -3.3 |
| 103 | 1001 1001 | 1569.38 | 1598.9 | 1.0 | 0.9 | 22.3 | 1595.9 | 3.1 |
| 104 | 1001 1000 | 1585.00 | 1604.5 | 0.8 | 0.8 | -5.6 | 1611.8 | -7.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 717
 1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|----------------------------------|-------|------------------------------------|------------------------|-------|
| | | | NOMINAL | LEVELS RATIO= 1:1
LOWER UPPER | POINT | | DEVIATION | |
| 105 | 1001 0111 | 1600.63 | 1625.7 | -1.0 | -0.0 | 21.1 | 1627.7 | -2.0 |
| 106 | 1001 0110 | 1616.25 | 1637.0 | -0.9 | -1.0 | 11.3 | 1643.6 | -6.6 |
| 107 | 1001 0101 | 1631.88 | 1660.7 | -0.0 | -1.0 | 23.7 | 1659.5 | 1.2 |
| 108 | 1001 0100 | 1647.50 | 1674.7 | 0.9 | 0.9 | 14.0 | 1675.3 | -0.6 |
| 109 | 1001 0011 | 1663.13 | 1690.7 | 1.0 | 0.9 | 15.9 | 1691.2 | -0.6 |
| 110 | 1001 0010 | 1678.75 | 1703.6 | -0.9 | -1.0 | 12.9 | 1707.1 | -3.5 |
| 111 | 1001 0001 | 1694.38 | 1726.8 | -1.0 | -1.0 | 23.2 | 1723.0 | 3.8 |
| 112 | 1001 0000 | 1710.00 | 1741.4 | 0.7 | 0.7 | 14.5 | 1738.9 | 2.4 |
| 113 | 1000 1111 | 1725.63 | 1750.2 | 1.0 | 1.0 | 8.8 | 1754.8 | -4.6 |
| 114 | 1000 1110 | 1741.25 | 1760.1 | -0.0 | 0.9 | 9.8 | 1770.7 | -10.7 |
| 115 | 1000 1101 | 1756.88 | 1786.4 | -0.9 | -1.0 | 26.3 | 1786.6 | -0.2 |
| 116 | 1000 1100 | 1772.50 | 1800.5 | -0.9 | -0.9 | 14.1 | 1802.5 | -2.0 |
| 117 | 1000 1011 | 1788.13 | 1816.4 | 1.0 | 1.0 | 15.9 | 1818.4 | -2.0 |
| 118 | 1000 1010 | 1803.75 | 1826.2 | 0.9 | 0.9 | 9.8 | 1834.3 | -8.1 |
| 119 | 1000 1001 | 1819.38 | 1852.5 | -1.0 | 0.0 | 26.2 | 1850.2 | 2.3 |
| 120 | 1000 1000 | 1835.00 | 1862.7 | -0.9 | -0.9 | 10.2 | 1866.1 | -3.5 |
| 121 | 1000 0111 | 1850.63 | 1878.1 | -0.0 | -1.0 | 15.5 | 1882.0 | -3.9 |
| 122 | 1000 0110 | 1866.25 | 1888.8 | 0.8 | 0.9 | 10.6 | 1897.9 | -9.1 |
| 123 | 1000 0101 | 1881.88 | 1912.1 | 1.1 | 1.1 | 23.3 | 1913.8 | -1.7 |
| 124 | 1000 0100 | 1897.50 | 1930.7 | -0.9 | -1.0 | 18.6 | 1929.7 | 1.0 |
| 125 | 1000 0011 | 1913.13 | 1943.4 | -0.9 | -0.8 | 12.7 | 1945.6 | -2.2 |
| 126 | 1000 0010 | 1928.75 | 1955.7 | 1.0 | -0.0 | 12.3 | 1961.5 | -5.8 |
| 127 | 1000 0001 | 1944.38 | 1978.1 | 1.0 | 1.0 | 22.5 | 1977.4 | 0.7 |
| 128 | 1000 0000 | 1960.00 | 1996.5 | 0.0 | 0.9 | 18.3 | 1993.3 | 3.2 |
| 129 | 0111 1111 | 1975.63 | 2010.3 | -0.9 | -0.9 | 13.8 | 2009.2 | 1.1 |
| 130 | 0111 1110 | 1991.25 | 2019.9 | -0.9 | -0.9 | 9.6 | 2025.1 | -5.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 718
 1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)



NOV 30 1981

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2006.88 | 2043.9 | 1.0 | 1.1 | 24.0 | 2041.0 | 2.9 |
| 132 | 0111 1100 | 2022.50 | 2057.9 | 1.0 | 1.0 | 14.0 | 2056.9 | 1.0 |
| 133 | 0111 1011 | 2038.13 | 2076.8 | -1.0 | -0.0 | 18.9 | 2072.8 | 4.0 |
| 134 | 0111 1010 | 2053.75 | 2090.3 | -0.9 | -0.9 | 13.5 | 2088.7 | 1.6 |
| 135 | 0111 1001 | 2069.38 | 2111.4 | 0.0 | -0.9 | 21.1 | 2104.6 | 6.8 |
| 136 | 0111 1000 | 2085.00 | 2114.5 | 0.9 | 0.9 | 3.1 | 2120.5 | -6.0 |
| 137 | 0111 0111 | 2100.63 | 2136.5 | 0.9 | 0.9 | 22.0 | 2126.4 | 0.1 |
| 138 | 0111 0110 | 2116.25 | 2148.7 | -1.0 | -1.2 | 12.2 | 2152.3 | -3.6 |
| 139 | 0111 0101 | 2131.88 | 2171.8 | -1.0 | -0.9 | 23.1 | 2168.2 | 3.7 |
| 140 | 0111 0100 | 2147.50 | 2188.0 | 1.0 | 0.0 | 16.1 | 2184.1 | 3.9 |
| 141 | 0111 0011 | 2163.13 | 2202.9 | 1.0 | 1.0 | 14.9 | 2200.0 | 2.9 |
| 142 | 0111 0010 | 2178.75 | 2213.9 | -0.0 | 0.9 | 11.1 | 2215.9 | -1.9 |
| 143 | 0111 0001 | 2194.38 | 2238.9 | -1.0 | -1.0 | 25.0 | 2231.8 | 7.1 |
| 144 | 0111 0000 | 2210.00 | 2248.6 | -0.8 | -0.8 | 9.7 | 2247.7 | 1.0 |
| 145 | 0110 1111 | 2225.63 | 2262.3 | 1.0 | 1.1 | 13.6 | 2263.6 | -1.3 |
| 146 | 0110 1110 | 2241.25 | 2272.3 | 1.0 | 0.9 | 10.0 | 2279.5 | -7.2 |
| 147 | 0110 1101 | 2256.88 | 2297.7 | -0.9 | 0.0 | 25.5 | 2295.4 | 2.4 |
| 148 | 0110 1100 | 2272.50 | 2306.0 | -0.9 | -0.9 | 8.3 | 2311.3 | -5.3 |
| 149 | 0110 1011 | 2288.13 | 2329.7 | -0.1 | -1.0 | 23.7 | 2327.2 | 2.6 |
| 150 | 0110 1010 | 2303.75 | 2343.0 | 1.0 | 0.9 | 13.2 | 2343.1 | -0.1 |
| 151 | 0110 1001 | 2319.38 | 2363.3 | 0.9 | 1.0 | 20.4 | 2359.0 | 4.4 |
| 152 | 0110 1000 | 2335.00 | 2375.4 | -0.9 | -0.8 | 12.1 | 2374.9 | 0.6 |
| 153 | 0110 0111 | 2350.63 | 2390.3 | -1.0 | -0.9 | 14.9 | 2390.8 | -0.4 |
| 154 | 0110 0110 | 2366.25 | 2400.6 | 1.0 | -0.1 | 10.3 | 2406.7 | -6.0 |
| 155 | 0110 0101 | 2381.88 | 2423.7 | 0.9 | 1.0 | 23.0 | 2422.5 | 1.1 |
| 156 | 0110 0100 | 2397.50 | 2443.7 | 0.0 | 0.9 | 20.0 | 2438.4 | 5.2 |
| 157 | 0110 0011 | 2413.13 | 2456.5 | -1.0 | -1.0 | 12.8 | 2454.3 | 7.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 719

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3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)

HAC
11/30/81
16:31:27

11/30/81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LTNE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2468.0 | -0.8 | -0.7 | 11.5 | 2470.2 | -2.2 |
| 159 | 0110 0001 | 2444.38 | 2490.7 | 1.0 | 1.0 | 22.6 | 2486.1 | 4.5 |
| 160 | 0110 0000 | 2460.00 | 2498.5 | 1.0 | 0.9 | 7.9 | 2502.0 | -3.5 |
| 161 | 0101 1111 | 2475.63 | 2517.5 | -1.8 | -0.0 | 18.9 | 2517.9 | -0.5 |
| 162 | 0101 1110 | 2491.25 | 2525.7 | -1.1 | -1.0 | 8.2 | 2533.8 | -8.2 |
| 163 | 0101 1101 | 2506.88 | 2551.1 | 0.0 | -1.0 | 25.4 | 2549.7 | 1.4 |
| 164 | 0101 1100 | 2522.50 | 2564.5 | 0.5 | 0.4 | 13.3 | 2565.6 | -1.2 |
| 165 | 0101 1011 | 2538.13 | 2582.2 | 1.0 | 1.0 | 17.7 | 2581.5 | 0.6 |
| 166 | 0101 1010 | 2553.75 | 2596.0 | -1.0 | -0.9 | 13.8 | 2597.4 | -1.4 |
| 167 | 0101 1001 | 2569.38 | 2617.4 | -1.0 | -1.0 | 21.4 | 2613.3 | 4.1 |
| 168 | 0101 1000 | 2585.00 | 2624.0 | 0.8 | -0.0 | 6.6 | 2629.2 | -5.2 |
| 169 | 0101 0111 | 2600.63 | 2642.8 | 0.8 | 0.9 | 18.8 | 2645.1 | -2.3 |
| 170 | 0101 0110 | 2616.25 | 2653.5 | 0.0 | 1.2 | 10.7 | 2661.0 | -7.5 |
| 171 | 0101 0101 | 2631.88 | 2677.8 | -0.7 | -0.7 | 24.2 | 2676.9 | 0.8 |
| 172 | 0101 0100 | 2647.50 | 2695.5 | -1.6 | -1.6 | 17.8 | 2692.8 | 2.7 |
| 173 | 0101 0011 | 2663.13 | 2709.1 | 1.0 | 1.0 | 13.6 | 2708.7 | 0.4 |
| 174 | 0101 0010 | 2678.75 | 2719.2 | 0.9 | 0.9 | 10.1 | 2724.6 | -5.4 |
| 175 | 0101 0001 | 2694.38 | 2745.0 | -1.0 | -0.0 | 25.8 | 2740.5 | 4.5 |
| 176 | 0101 0000 | 2710.00 | 2758.5 | -0.9 | -0.9 | 13.4 | 2756.4 | 2.0 |
| 177 | 0100 1111 | 2725.63 | 2769.7 | 0.0 | -1.0 | 11.2 | 2772.3 | -2.6 |
| 178 | 0100 1110 | 2741.25 | 2778.1 | 0.9 | 0.9 | 8.4 | 2788.2 | -10.1 |
| 179 | 0100 1101 | 2756.88 | 2803.1 | 0.9 | 0.9 | 25.0 | 2804.1 | -1.0 |
| 180 | 0100 1100 | 2772.50 | 2820.4 | -0.9 | -1.0 | 17.3 | 2820.0 | 0.4 |
| 181 | 0100 1011 | 2788.13 | 2836.1 | -1.0 | -0.9 | 15.7 | 2835.9 | 0.2 |
| 182 | 0100 1010 | 2803.75 | 2848.3 | 1.0 | -0.1 | 12.2 | 2851.8 | -3.5 |
| 183 | 0100 1001 | 2819.38 | 2869.4 | 1.0 | 1.0 | 21.1 | 2867.7 | 1.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 720

1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2883.3 | -4.6 | 1.0 | 13.9 | 2883.6 | -0.2 |
| 185 | 0100 0111 | 2850.63 | 2896.8 | -1.3 | -1.2 | 13.5 | 2899.5 | -2.6 |
| 186 | 0100 0110 | 2866.25 | 2907.8 | -1.1 | -1.0 | 11.0 | 2915.4 | -7.5 |
| 187 | 0100 0101 | 2881.88 | 2930.1 | 1.0 | 1.1 | 22.3 | 2931.3 | -1.2 |
| 188 | 0100 0100 | 2897.50 | 2950.2 | 0.9 | 0.9 | 20.1 | 2947.2 | 3.0 |
| 189 | 0100 0011 | 2913.13 | 2963.1 | -1.0 | -0.0 | 12.9 | 2963.1 | 0.1 |
| 190 | 0100 0010 | 2928.75 | 2973.9 | -1.0 | -0.9 | 10.8 | 2979.0 | -5.0 |
| 191 | 0100 0001 | 2944.38 | 2998.2 | -0.0 | -1.0 | 24.2 | 2994.9 | 3.3 |
| 192 | 0100 0000 | 2960.00 | 3010.6 | 0.9 | 0.6 | 12.4 | 3010.8 | -0.1 |
| 193 | 0011 1111 | 2975.63 | 3022.5 | 1.0 | 1.0 | 11.9 | 3026.7 | -4.2 |
| 194 | 0011 1110 | 2991.25 | 3031.9 | -1.0 | -1.0 | 9.4 | 3042.6 | -10.6 |
| 195 | 0011 1101 | 3006.88 | 3058.1 | -1.1 | -1.0 | 26.2 | 3058.5 | -0.3 |
| 196 | 0011 1100 | 3022.50 | 3070.7 | 1.0 | 0.0 | 12.6 | 3074.4 | -3.6 |
| 197 | 0011 1011 | 3038.13 | 3089.1 | 1.1 | 1.2 | 18.4 | 3090.3 | -1.1 |
| 198 | 0011 1010 | 3053.75 | 3101.9 | -0.0 | 0.9 | 12.7 | 3106.2 | -4.3 |
| 199 | 0011 1001 | 3069.38 | 3124.8 | -1.0 | -1.0 | 22.9 | 3122.1 | 2.7 |
| 200 | 0011 1000 | 3085.00 | 3128.7 | -0.9 | -1.0 | 3.9 | 3138.0 | -9.3 |
| 201 | 0011 0111 | 3100.63 | 3150.5 | 0.9 | 1.0 | 21.8 | 3153.9 | -3.4 |
| 202 | 0011 0110 | 3116.25 | 3161.3 | 0.6 | 0.7 | 10.8 | 3169.8 | -8.5 |
| 203 | 0011 0101 | 3131.88 | 3186.0 | -1.1 | 0.0 | 24.7 | 3185.6 | 0.3 |
| 204 | 0011 0100 | 3147.50 | 3202.6 | -0.9 | -0.9 | 16.6 | 3201.5 | 1.1 |
| 205 | 0011 0011 | 3163.13 | 3218.3 | -0.0 | -1.0 | 15.6 | 3217.4 | 0.8 |
| 206 | 0011 0010 | 3178.75 | 3231.8 | 1.1 | 1.1 | 13.5 | 3233.3 | -1.6 |
| 207 | 0011 0001 | 3194.38 | 3252.4 | 0.9 | 1.0 | 20.6 | 3249.2 | 3.1 |
| 208 | 0011 0000 | 3210.00 | 3265.8 | -1.0 | -1.0 | 13.5 | 3265.1 | 0.7 |
| 209 | 0010 1111 | 3225.63 | 3278.3 | -1.0 | -1.0 | 12.5 | 3281.0 | -2.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 721
 1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-4 A/D THRESHOLD TEST (BAND= 4, SENSOR=10)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3286.2 | 0.8 | 0.1 | 7.9 | 3296.9 | -10.7 |
| 211 | 0010 1101 | 3256.88 | 3312.0 | 0.9 | 1.0 | 25.8 | 3312.8 | -0.8 |
| 212 | 0010 1100 | 3272.50 | 3328.1 | -0.1 | 1.0 | 16.1 | 3328.7 | -0.6 |
| 213 | 0010 1011 | 3288.13 | 3345.4 | -1.0 | -1.0 | 17.2 | 3344.6 | 0.8 |
| 214 | 0010 1010 | 3303.75 | 3358.5 | -1.0 | -1.0 | 13.1 | 3360.5 | -2.0 |
| 215 | 0010 1001 | 3319.38 | 3378.8 | 0.9 | 1.0 | 20.3 | 3376.4 | 2.4 |
| 216 | 0010 1000 | 3335.00 | 3389.4 | -3.5 | 1.1 | 10.6 | 3392.3 | -2.9 |
| 217 | 0010 0111 | 3350.63 | 3406.7 | -1.1 | -0.1 | 17.3 | 3408.2 | -1.5 |
| 218 | 0010 0110 | 3366.25 | 3417.2 | -1.0 | -1.0 | 10.4 | 3424.1 | -7.0 |
| 219 | 0010 0101 | 3381.88 | 3441.3 | -0.1 | -1.0 | 24.1 | 3440.0 | 1.2 |
| 220 | 0010 0100 | 3397.50 | 3460.0 | 0.9 | 1.0 | 18.7 | 3455.9 | 4.0 |
| 221 | 0010 0011 | 3413.13 | 3472.5 | 1.2 | 1.2 | 12.5 | 3471.8 | 0.6 |
| 222 | 0010 0010 | 3428.75 | 3483.3 | -1.0 | -1.0 | 10.8 | 3487.7 | -4.4 |
| 223 | 0010 0001 | 3444.38 | 3508.7 | -0.8 | -0.7 | 25.4 | 3503.6 | 5.1 |
| 224 | 0010 0000 | 3460.00 | 3519.6 | 1.0 | 0.0 | 10.9 | 3519.5 | 0.1 |
| 225 | 0001 1111 | 3475.63 | 3533.6 | 0.9 | 1.0 | 13.9 | 3535.4 | -1.8 |
| 226 | 0001 1110 | 3491.25 | 3541.5 | -0.1 | 0.9 | 8.0 | 3551.3 | -9.8 |
| 227 | 0001 1101 | 3506.88 | 3569.4 | -1.1 | -1.0 | 27.8 | 3567.2 | 2.2 |
| 228 | 0001 1100 | 3522.50 | 3583.3 | -1.1 | -1.1 | 13.9 | 3583.1 | 0.2 |
| 229 | 0001 1011 | 3538.13 | 3601.0 | 1.0 | 1.1 | 17.7 | 3599.0 | 2.0 |
| 230 | 0001 1010 | 3553.75 | 3613.0 | 0.6 | 0.6 | 12.0 | 3614.9 | -1.9 |
| 231 | 0001 1001 | 3569.38 | 3636.6 | -1.2 | 0.0 | 23.6 | 3630.8 | 5.8 |
| 232 | 0001 1000 | 3585.00 | 3641.0 | -1.0 | -1.0 | 4.3 | 3646.7 | -5.7 |
| 233 | 0001 0111 | 3600.63 | 3663.6 | -0.1 | -1.0 | 22.6 | 3662.6 | 1.0 |
| 234 | 0001 0110 | 3616.25 | 3672.9 | 1.0 | 1.0 | 9.3 | 3678.5 | -5.6 |
| 235 | 0001 0101 | 3631.88 | 3697.3 | 0.9 | 1.0 | 24.4 | 3694.4 | 2.9 |
| 236 | 0001 0100 | 3647.50 | 3715.4 | -1.2 | -1.1 | 18.1 | 3710.3 | 5.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 722
 1981/11/30 16:31:27 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=10)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3731.0 | -1.1 | -1.0 | 15.6 | 3726.2 | 4.8 |
| 238 | 0001 0010 | 3678.75 | 3744.0 | 0.8 | 0.1 | 13.0 | 3742.1 | 2.0 |
| 239 | 0001 0001 | 3694.38 | 3765.1 | 0.8 | 0.9 | 21.0 | 3758.0 | 7.1 |
| 240 | 0001 0000 | 3710.00 | 3781.9 | -0.1 | 0.9 | 16.8 | 3773.9 | 8.0 |
| 241 | 0000 1111 | 3725.63 | 3791.0 | -0.4 | -0.3 | 9.1 | 3789.8 | 1.2 |
| 242 | 0000 1110 | 3741.25 | 3799.9 | -0.9 | -1.0 | 8.9 | 3805.7 | -5.7 |
| 243 | 0000 1101 | 3756.88 | 3825.4 | 0.8 | 1.0 | 25.5 | 3821.6 | 3.9 |
| 244 | 0000 1100 | 3772.50 | 3841.4 | 0.9 | 0.9 | 16.0 | 3837.5 | 4.0 |
| 245 | 0000 1011 | 3788.13 | 3859.2 | -1.1 | 0.1 | 17.8 | 3853.4 | 5.9 |
| 246 | 0000 1010 | 3803.75 | 3871.0 | -1.1 | -1.0 | 11.7 | 3869.3 | 1.7 |
| 247 | 0000 1001 | 3819.38 | 3893.9 | -0.1 | -1.0 | 22.9 | 3885.2 | 8.8 |
| 248 | 0000 1000 | 3835.00 | 3902.5 | 0.9 | 1.0 | 8.5 | 3901.1 | 1.4 |
| 249 | 0000 0111 | 3850.63 | 3920.0 | 0.0 | 1.1 | 17.5 | 3917.0 | 3.0 |
| 250 | 0000 0110 | 3866.25 | 3931.6 | -1.1 | -1.3 | 11.6 | 3932.8 | -1.2 |
| 251 | 0000 0101 | 3881.88 | 3955.8 | -1.2 | -0.9 | 24.1 | 3948.7 | 7.0 |
| 252 | 0000 0100 | 3897.50 | 3974.4 | 0.9 | -0.0 | 18.6 | 3964.6 | 9.7 |
| 253 | 0000 0011 | 3913.13 | 3987.6 | 0.9 | 1.0 | 13.3 | 3980.5 | 7.1 |
| 254 | 0000 0010 | 3928.75 | 3996.6 | -0.1 | 0.9 | 9.0 | 3996.4 | 0.2 |
| 255 | 0000 0001 | 3944.38 | 4024.1 | -1.2 | -1.0 | 27.4 | 4012.3 | 11.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 723
 1981/11/30 16:37:49 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)
 S U M M A R Y



CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 <= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.887X - 42.1MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.674%

OFFSET IS: -42.1MV

COEFFICIENT OF DETERMINATION IS: $R^2 = .99998700$

ANALOG INPUT DURING DC RESTORE IS: 64.4MV

RMS ERROR = 4.457MV REQMT: RMS ERROR <= 7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|--|-------------|----------|---------|-------------|--------------------|
| 28.2MV | 243 | 15.941MV | 2.7MV | 136 | 6.083MV |
| LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 1.8MV | 199 | -0.282MV | -8.9MV | 193 | 1.460MV |
| UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 1.8MV | 199 | -0.058MV | -1.4MV | 120 | .778MV |

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TEST PASSED

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 724

1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)

HAC
TEST
127

| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1 | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|--|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -28.9 | -1.4 | -0.7 | | -26.7 | -2.7 |
| 2 | 1111 1110 | -8.750 | -18.5 | 0.3 | 0.0 | 10.5 | -10.3 | -8.1 |
| 3 | 1111 1101 | 6.875 | 5.9 | 1.0 | 1.2 | 24.4 | 5.6 | 0.3 |
| 4 | 1111 1100 | 22.500 | 19.3 | -0.1 | 0.7 | 13.4 | 21.4 | -2.2 |
| 5 | 1111 1011 | 38.125 | 37.3 | -0.9 | -0.9 | 18.0 | 37.3 | -0.0 |
| 6 | 1111 1010 | 53.750 | 50.0 | -0.8 | -0.8 | 12.7 | 53.2 | -3.2 |
| 7 | 1111 1001 | 69.375 | 73.1 | 0.8 | 0.9 | 23.1 | 69.1 | 4.0 |
| 8 | 1111 1000 | 85.000 | 77.8 | 0.7 | 0.6 | 4.7 | 85.0 | -7.2 |
| 9 | 1111 0111 | 100.625 | 99.0 | -0.7 | -0.1 | 21.2 | 100.9 | -1.8 |
| 10 | 1111 0110 | 116.250 | 112.3 | -0.4 | -0.4 | 13.3 | 116.8 | -4.4 |
| 11 | 1111 0101 | 131.875 | 135.6 | -0.1 | -1.1 | 23.2 | 132.6 | 2.9 |
| 12 | 1111 0100 | 147.500 | 150.8 | 0.6 | 0.7 | 15.2 | 148.5 | 2.3 |
| 13 | 1111 0011 | 163.125 | 164.6 | 0.8 | 0.8 | 13.8 | 164.4 | 0.2 |
| 14 | 1111 0010 | 178.750 | 180.9 | -0.7 | -0.6 | 16.3 | 180.3 | 0.6 |
| 15 | 1111 0001 | 194.375 | 202.4 | -0.9 | -0.9 | 21.4 | 196.2 | 6.2 |
| 16 | 1111 0000 | 210.000 | 211.5 | 1.0 | 0.0 | 9.1 | 212.1 | -0.6 |
| 17 | 1110 1111 | 225.625 | 225.9 | 0.7 | 0.7 | 14.4 | 228.0 | -2.1 |
| 18 | 1110 1110 | 241.250 | 237.6 | -0.1 | 0.3 | 11.7 | 243.9 | -6.2 |
| 19 | 1110 1101 | 256.875 | 262.6 | -1.1 | -0.9 | 24.9 | 259.7 | 2.8 |
| 20 | 1110 1100 | 272.500 | 278.0 | -0.6 | -0.7 | 15.4 | 275.6 | 2.4 |
| 21 | 1110 1011 | 288.125 | 291.9 | 0.9 | 0.9 | 13.9 | 291.5 | 0.4 |
| 22 | 1110 1010 | 303.750 | 305.4 | 0.7 | 0.7 | 13.5 | 307.4 | -2.0 |
| 23 | 1110 1001 | 319.375 | 329.5 | -0.9 | -0.0 | 24.1 | 323.3 | 6.2 |
| 24 | 1110 1000 | 335.000 | 338.1 | -0.7 | -0.6 | 8.6 | 339.2 | -1.1 |
| 25 | 1110 0111 | 350.625 | 354.4 | 0.0 | -0.8 | 16.3 | 355.1 | -0.7 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 725
 1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 367.8 | 0.3 | 0.3 | 13.4 | 370.9 | -3.2 |
| 27 | 1110 0101 | 381.875 | 390.0 | 0.9 | 1.0 | 22.7 | 386.8 | 3.2 |
| 28 | 1110 0100 | 397.500 | 409.6 | -0.8 | -0.9 | 19.6 | 402.7 | 6.9 |
| 29 | 1110 0011 | 413.125 | 420.8 | -0.9 | -0.9 | 11.2 | 418.6 | 2.2 |
| 30 | 1110 0010 | 428.750 | 436.2 | 0.3 | -0.1 | 15.4 | 434.5 | 1.7 |
| 31 | 1110 0001 | 444.375 | 456.7 | 0.6 | 0.7 | 20.5 | 450.4 | 6.3 |
| 32 | 1110 0000 | 460.000 | 462.7 | -0.0 | 0.9 | 6.0 | 466.3 | -3.5 |
| 33 | 1101 1111 | 475.625 | 482.6 | -0.9 | -0.9 | 19.9 | 482.2 | 0.5 |
| 34 | 1101 1110 | 491.250 | 493.2 | -0.7 | -0.6 | 10.5 | 498.0 | -4.9 |
| 35 | 1101 1101 | 506.875 | 517.3 | 0.7 | 0.8 | 24.1 | 513.9 | 3.4 |
| 36 | 1101 1100 | 522.500 | 530.7 | 0.6 | 0.6 | 13.4 | 529.8 | 0.9 |
| 37 | 1101 1011 | 538.125 | 548.4 | -0.9 | -0.1 | 17.7 | 545.7 | 2.7 |
| 38 | 1101 1010 | 553.750 | 560.5 | -0.7 | -0.7 | 12.1 | 561.6 | -1.1 |
| 39 | 1101 1001 | 569.375 | 585.1 | -0.1 | -0.9 | 24.6 | 577.5 | 7.6 |
| 40 | 1101 1000 | 585.000 | 592.1 | 0.6 | 0.6 | 7.0 | 593.4 | -1.2 |
| 41 | 1101 0111 | 600.625 | 609.4 | 0.6 | 0.5 | 17.3 | 609.2 | 0.2 |
| 42 | 1101 0110 | 616.250 | 622.8 | -0.3 | -0.3 | 13.4 | 625.1 | -2.3 |
| 43 | 1101 0101 | 631.875 | 646.2 | -1.1 | -1.0 | 23.3 | 641.0 | 5.1 |
| 44 | 1101 0100 | 647.500 | 661.3 | 0.9 | 0.0 | 15.1 | 656.9 | 4.4 |
| 45 | 1101 0011 | 663.125 | 675.3 | 0.9 | 0.9 | 14.0 | 672.8 | 2.5 |
| 46 | 1101 0010 | 678.750 | 690.4 | -0.0 | 0.7 | 15.0 | 688.7 | 1.7 |
| 47 | 1101 0001 | 694.375 | 712.5 | -0.9 | -0.9 | 22.2 | 704.6 | 8.0 |
| 48 | 1101 0000 | 710.000 | 726.3 | -1.0 | -1.0 | 13.7 | 720.4 | 5.8 |
| 49 | 1100 1111 | 725.625 | 736.0 | 0.8 | 0.8 | 9.7 | 736.3 | -0.3 |
| 50 | 1100 1110 | 741.250 | 747.4 | 0.3 | 0.4 | 11.4 | 752.2 | -4.8 |
| 51 | 1100 1101 | 756.875 | 772.2 | -0.9 | 0.0 | 24.8 | 768.1 | 4.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 726
 1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-4 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)



NOV 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV)
LEVELS RATIO= 1 : 1
NOMINAL LOWER UPPER | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE
POINT DEVIATION |
|---------------------|-------------------------|------------------------|---|------------------------------------|---|
| 52 | 1100 1100 | 772.500 | 787.8 -0.6 -0.7 | 15.6 | 784.0 3.8 |
| 53 | 1100 1011 | 788.125 | 802.4 0.0 -0.9 | 14.7 | 799.9 2.6 |
| 54 | 1100 1010 | 803.750 | 814.4 0.8 0.8 | 12.0 | 815.8 -1.4 |
| 55 | 1100 1001 | 819.375 | 838.0 0.8 0.8 | 23.6 | 831.7 6.3 |
| 56 | 1100 1000 | 835.000 | 850.6 -0.7 -0.8 | 12.6 | 847.5 3.0 |
| 57 | 1100 0111 | 850.625 | 863.6 -0.9 -0.8 | 13.0 | 863.4 0.1 |
| 58 | 1100 0110 | 866.250 | 876.5 0.3 -0.0 | 13.0 | 879.3 -2.8 |
| 59 | 1100 0101 | 881.875 | 898.7 1.0 1.0 | 22.1 | 895.2 3.5 |
| 60 | 1100 0100 | 897.500 | 917.8 -0.1 0.8 | 19.1 | 911.1 6.7 |
| 61 | 1100 0011 | 913.125 | 929.6 -1.0 -1.0 | 11.8 | 927.0 2.6 |
| 62 | 1100 0010 | 928.750 | 944.8 -0.6 -0.6 | 15.3 | 942.9 2.0 |
| 63 | 1100 0001 | 944.375 | 964.7 0.8 0.7 | 19.9 | 958.7 5.9 |
| 64 | 1100 0000 | 960.000 | 975.7 1.0 1.0 | 11.0 | 974.6 1.0 |
| 65 | 1011 1111 | 975.625 | 991.8 -0.9 -0.0 | 16.1 | 990.5 1.3 |
| 66 | 1011 1110 | 991.250 | 1000.6 -0.8 -0.8 | 8.8 | 1006.4 -5.8 |
| 67 | 1011 1101 | 1006.88 | 1026.6 -0.1 -1.1 | 26.0 | 1022.3 4.3 |
| 68 | 1011 1100 | 1022.50 | 1038.4 0.8 0.8 | 11.7 | 1038.2 0.2 |
| 69 | 1011 1011 | 1038.13 | 1056.4 0.9 0.9 | 18.0 | 1054.1 2.3 |
| 70 | 1011 1010 | 1053.75 | 1068.2 -1.7 1.0 | 11.8 | 1070.0 -1.8 |
| 71 | 1011 1001 | 1069.38 | 1092.7 -1.0 -1.0 | 24.6 | 1085.8 6.9 |
| 72 | 1011 1000 | 1085.00 | 1096.1 0.7 -0.0 | 13.4 | 1101.7 -5.6 |
| 73 | 1011 0111 | 1100.63 | 1117.7 0.7 0.7 | 21.6 | 1117.6 0.1 |
| 74 | 1011 0110 | 1116.25 | 1128.9 0.0 0.4 | 11.2 | 1137.5 -4.6 |
| 75 | 1011 0101 | 1131.88 | 1153.3 -0.8 -0.7 | 24.3 | 1149.4 3.9 |
| 76 | 1011 0100 | 1147.50 | 1169.3 -0.9 -1.0 | 16.0 | 1165.3 4.0 |
| 77 | 1011 0011 | 1163.13 | 1182.9 0.7 0.7 | 13.6 | 1181.7 1.8 |
| 78 | 1011 0010 | 1178.75 | 1196.1 0.8 0.8 | 13.2 | 1197.0 -0.9 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 727

1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1219.8 | -0.9 | 0.0 | 23.7 | 1212.9 | 6.9 |
| 80 | 1011 0000 | 1210.00 | 1232.6 | -0.9 | -0.9 | 12.8 | 1228.8 | 3.8 |
| 81 | 1010 1111 | 1225.63 | 1244.4 | -0.0 | -0.9 | 11.8 | 1244.7 | -0.3 |
| 82 | 1010 1110 | 1241.25 | 1253.1 | 0.7 | 0.6 | 8.7 | 1260.6 | -7.5 |
| 83 | 1010 1101 | 1256.88 | 1278.2 | 0.9 | 0.9 | 25.1 | 1276.5 | 1.8 |
| 84 | 1010 1100 | 1272.50 | 1294.2 | -0.8 | 0.0 | 15.9 | 1292.4 | 1.8 |
| 85 | 1010 1011 | 1288.13 | 1309.6 | -0.7 | -0.8 | 15.4 | 1308.3 | 1.4 |
| 86 | 1010 1010 | 1303.75 | 1319.6 | 0.7 | -0.1 | 9.9 | 1324.1 | -4.6 |
| 87 | 1010 1001 | 1319.38 | 1344.3 | 1.1 | 1.0 | 24.7 | 1340.0 | 4.3 |
| 88 | 1010 1000 | 1335.00 | 1355.0 | 0.0 | 0.8 | 10.6 | 1355.9 | -1.0 |
| 89 | 1010 0111 | 1350.63 | 1370.7 | -0.7 | -0.8 | 15.8 | 1371.8 | -1.1 |
| 90 | 1010 0110 | 1366.25 | 1382.2 | -0.4 | -0.4 | 11.4 | 1387.7 | -5.5 |
| 91 | 1010 0101 | 1381.88 | 1404.9 | 1.0 | -0.0 | 22.7 | 1403.6 | 1.4 |
| 92 | 1010 0100 | 1397.50 | 1423.3 | 0.8 | 0.7 | 18.4 | 1419.5 | 3.9 |
| 93 | 1010 0011 | 1413.13 | 1435.3 | -0.3 | 0.0 | 12.0 | 1435.3 | 0.0 |
| 94 | 1010 0010 | 1428.75 | 1450.0 | -0.8 | -0.8 | 14.6 | 1451.2 | -1.2 |
| 95 | 1010 0001 | 1444.38 | 1472.0 | 0.0 | -0.8 | 22.0 | 1467.1 | 4.9 |
| 96 | 1010 0000 | 1460.00 | 1480.9 | 1.2 | 1.2 | 8.9 | 1483.0 | -2.1 |
| 97 | 1001 1111 | 1475.63 | 1496.5 | 0.8 | 0.7 | 15.6 | 1498.9 | -2.4 |
| 98 | 1001 1110 | 1491.25 | 1505.9 | -0.8 | -0.0 | 9.4 | 1514.8 | -8.9 |
| 99 | 1001 1101 | 1506.88 | 1531.8 | -0.9 | -1.0 | 25.9 | 1530.7 | 1.2 |
| 100 | 1001 1100 | 1522.50 | 1543.9 | 0.6 | -0.0 | 12.0 | 1546.6 | -2.7 |
| 101 | 1001 1011 | 1538.13 | 1561.8 | 0.8 | 0.7 | 17.9 | 1562.4 | -0.6 |
| 102 | 1001 1010 | 1553.75 | 1573.1 | -1.7 | -1.1 | 11.3 | 1578.3 | -5.2 |
| 103 | 1001 1001 | 1569.38 | 1598.2 | -1.3 | -1.3 | 25.0 | 1594.2 | 3.9 |
| 104 | 1001 1000 | 1585.00 | 1604.9 | -0.9 | -0.9 | 6.7 | 1610.1 | -5.2 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 728

1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1.1)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 105 | 1001 0111 | 1600.63 | 1622.9 | 0.8 | -0.1 | 18.1 | 1676.0 | -3.1 |
| 106 | 1001 0110 | 1616.25 | 1634.2 | 0.3 | 0.3 | 11.3 | 1641.9 | -7.6 |
| 107 | 1001 0101 | 1631.88 | 1658.7 | -1.0 | -0.1 | 24.5 | 1657.8 | 0.9 |
| 108 | 1001 0100 | 1647.50 | 1674.4 | -0.9 | -0.9 | 15.7 | 1673.6 | 0.8 |
| 109 | 1001 0011 | 1663.13 | 1688.7 | -0.0 | -0.9 | 14.3 | 1689.5 | -0.8 |
| 110 | 1001 0010 | 1678.75 | 1701.0 | 0.7 | 0.7 | 12.2 | 1705.4 | -4.4 |
| 111 | 1001 0001 | 1694.38 | 1724.1 | 1.0 | 0.9 | 23.1 | 1721.3 | 2.8 |
| 112 | 1001 0000 | 1710.00 | 1741.5 | -1.0 | 0.0 | 17.4 | 1737.2 | 4.3 |
| 113 | 1000 1111 | 1725.63 | 1749.5 | -0.9 | -0.9 | 8.0 | 1753.1 | -3.6 |
| 114 | 1000 1110 | 1741.25 | 1758.0 | 0.8 | 0.0 | 8.5 | 1769.0 | -11.0 |
| 115 | 1000 1101 | 1756.88 | 1783.1 | 0.9 | 1.0 | 25.1 | 1784.9 | -1.8 |
| 116 | 1000 1100 | 1772.50 | 1798.5 | -0.0 | 0.6 | 15.4 | 1800.7 | -2.3 |
| 117 | 1000 1011 | 1788.13 | 1814.6 | -0.8 | -0.8 | 16.1 | 1816.6 | -2.1 |
| 118 | 1000 1010 | 1803.75 | 1825.1 | -0.7 | -0.8 | 10.5 | 1832.5 | -7.4 |
| 119 | 1000 1001 | 1819.38 | 1849.5 | 0.9 | -0.0 | 24.3 | 1848.4 | 1.1 |
| 120 | 1000 1000 | 1835.00 | 1863.1 | 0.8 | -1.4 | 13.6 | 1864.3 | -1.2 |
| 121 | 1000 0111 | 1850.63 | 1875.6 | -0.8 | -0.1 | 12.6 | 1880.2 | -4.5 |
| 122 | 1000 0110 | 1866.25 | 1887.1 | -0.4 | -0.4 | 11.5 | 1896.1 | -9.0 |
| 123 | 1000 0101 | 1881.88 | 1910.8 | -0.2 | -1.0 | 23.7 | 1911.9 | -1.2 |
| 124 | 1000 0100 | 1897.50 | 1928.4 | 0.9 | 0.8 | 17.6 | 1927.8 | 0.6 |
| 125 | 1000 0011 | 1913.13 | 1939.6 | 1.2 | 1.2 | 11.2 | 1943.7 | -4.1 |
| 126 | 1000 0010 | 1928.75 | 1954.7 | -0.8 | -0.1 | 15.0 | 1959.6 | -4.9 |
| 127 | 1000 0001 | 1944.38 | 1977.0 | -0.9 | -1.0 | 22.3 | 1975.5 | 1.5 |
| 128 | 1000 0000 | 1960.00 | 1994.4 | 1.0 | -0.0 | 17.4 | 1991.4 | 3.0 |
| 129 | 0111 1111 | 1975.63 | 2007.9 | -7.1 | 1.0 | 13.6 | 2007.3 | 0.7 |
| 130 | 0111 1110 | 1991.25 | 2017.1 | -0.1 | 0.8 | 9.1 | 2023.1 | -6.1 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 729

1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 131 | 0111 1101 | 2066.98 | 2043.8 | -1.1 | -1.1 | 26.7 | 2039.0 | 4.7 |
| 132 | 0111 1100 | 2022.50 | 2057.4 | -1.1 | -1.1 | 13.6 | 2054.9 | 2.5 |
| 133 | 0111 1011 | 2038.13 | 2073.5 | -6.3 | -0.0 | 16.1 | 2070.8 | 2.7 |
| 134 | 0111 1010 | 2053.75 | 2087.1 | 1.1 | 1.1 | 13.6 | 2086.7 | 0.4 |
| 135 | 0111 1001 | 2069.38 | 2110.1 | -1.2 | -0.1 | 22.9 | 2102.6 | 7.5 |
| 136 | 0111 1000 | 2085.00 | 2112.7 | -0.9 | -0.9 | 2.7 | 2118.5 | -5.7 |
| 137 | 0111 0111 | 2100.63 | 2135.5 | -7.8 | -0.7 | 22.8 | 2134.4 | 1.1 |
| 138 | 0111 0110 | 2116.25 | 2145.9 | 0.1 | 0.0 | 10.4 | 2150.2 | -4.4 |
| 139 | 0111 0101 | 2131.88 | 2169.6 | 1.1 | 1.2 | 23.7 | 2166.1 | 3.5 |
| 140 | 0111 0100 | 2147.50 | 2187.6 | -1.0 | -0.1 | 17.9 | 2182.0 | 5.6 |
| 141 | 0111 0011 | 2163.13 | 2200.9 | -0.9 | -0.9 | 13.4 | 2197.9 | 3.0 |
| 142 | 0111 0010 | 2178.75 | 2212.1 | 0.6 | -0.1 | 11.2 | 2213.8 | -1.7 |
| 143 | 0111 0001 | 2194.38 | 2235.9 | 0.9 | 0.9 | 23.8 | 2229.7 | 6.2 |
| 144 | 0111 0000 | 2210.00 | 2246.4 | -0.0 | 1.4 | 10.5 | 2245.6 | 0.8 |
| 145 | 0110 1111 | 2225.63 | 2261.6 | -0.9 | -0.9 | 15.3 | 2261.4 | 0.2 |
| 146 | 0110 1110 | 2241.25 | 2271.2 | -0.8 | -0.8 | 9.5 | 2277.3 | -6.2 |
| 147 | 0110 1101 | 2256.88 | 2295.4 | 1.2 | -0.1 | 24.2 | 2293.2 | 2.1 |
| 148 | 0110 1100 | 2272.50 | 2303.3 | 0.6 | 0.6 | 7.9 | 2309.1 | -5.8 |
| 149 | 0110 1011 | 2288.13 | 2326.8 | -0.8 | -0.1 | 23.5 | 2325.0 | 1.8 |
| 150 | 0110 1010 | 2303.75 | 2341.7 | -0.9 | -0.9 | 14.9 | 2340.9 | 0.8 |
| 151 | 0110 1001 | 2319.38 | 2362.6 | 0.0 | -1.2 | 20.9 | 2356.8 | 5.8 |
| 152 | 0110 1000 | 2335.00 | 2372.6 | -1.0 | -0.8 | 10.0 | 2372.7 | -0.0 |
| 153 | 0110 0111 | 2350.63 | 2387.3 | -6.8 | 0.3 | 14.6 | 2388.5 | -1.3 |
| 154 | 0110 0110 | 2366.25 | 2398.8 | -0.5 | -0.0 | 11.5 | 2404.4 | -5.6 |
| 155 | 0110 0101 | 2381.88 | 2423.3 | -1.1 | -1.2 | 24.5 | 2420.3 | 3.0 |
| 156 | 0110 0100 | 2397.50 | 2442.0 | 0.7 | -0.0 | 18.7 | 2436.2 | 5.8 |
| 157 | 0110 0011 | 2413.13 | 2452.6 | 0.8 | 0.8 | 10.5 | 2452.1 | 0.5 |

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NO 30 81

HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 730
 1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)



BY 30 81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 158 | 0110 0010 | 2428.75 | 2465.3 | 0.0 | 0.8 | 12.7 | 2468.0 | -2.7 |
| 159 | 0110 0001 | 2444.38 | 2489.4 | -1.1 | -1.1 | 24.1 | 2483.9 | 5.5 |
| 160 | 0110 0000 | 2460.00 | 2496.4 | -1.2 | -1.2 | 7.0 | 2499.7 | -3.3 |
| 161 | 0101 1111 | 2475.63 | 2514.0 | -7.5 | -0.1 | 17.6 | 2515.6 | -1.6 |
| 162 | 0101 1110 | 2491.25 | 2522.5 | 0.9 | 0.8 | 8.5 | 2531.5 | -9.0 |
| 163 | 0101 1101 | 2506.88 | 2549.8 | -1.3 | -1.1 | 27.3 | 2547.4 | 2.4 |
| 164 | 0101 1100 | 2522.50 | 2554.4 | -0.7 | -0.8 | 4.6 | 2563.3 | -8.9 |
| 165 | 0101 1011 | 2538.13 | 2580.2 | -7.4 | -0.9 | 25.7 | 2579.2 | 1.0 |
| 166 | 0101 1010 | 2553.75 | 2592.8 | 1.0 | 1.0 | 12.6 | 2595.1 | -2.3 |
| 167 | 0101 1001 | 2569.38 | 2614.9 | 1.1 | 1.0 | 22.1 | 2611.0 | 3.9 |
| 168 | 0101 1000 | 2585.00 | 2621.3 | -0.6 | 0.0 | 6.5 | 2626.8 | -5.5 |
| 169 | 0101 0111 | 2600.63 | 2641.5 | -0.8 | -0.8 | 20.1 | 2642.7 | -1.3 |
| 170 | 0101 0110 | 2616.25 | 2651.4 | 0.0 | -0.2 | 10.0 | 2658.6 | -7.2 |
| 171 | 0101 0101 | 2631.88 | 2675.5 | 1.1 | 1.2 | 24.0 | 2674.5 | 1.0 |
| 172 | 0101 0100 | 2647.50 | 2692.8 | -0.0 | 0.9 | 17.3 | 2690.4 | 2.4 |
| 173 | 0101 0011 | 2663.13 | 2706.8 | -0.9 | -0.9 | 14.0 | 2706.3 | 0.5 |
| 174 | 0101 0010 | 2678.75 | 2717.8 | -0.7 | -0.8 | 11.0 | 2722.2 | -4.4 |
| 175 | 0101 0001 | 2694.38 | 2741.7 | 0.6 | -0.0 | 23.9 | 2738.0 | 3.6 |
| 176 | 0101 0000 | 2710.00 | 2756.2 | 1.0 | 1.0 | 14.5 | 2753.9 | 2.3 |
| 177 | 0100 1111 | 2725.63 | 2767.6 | -1.0 | -0.0 | 11.4 | 2769.8 | -2.2 |
| 178 | 0100 1110 | 2741.25 | 2776.6 | -0.8 | -0.8 | 9.0 | 2785.7 | -9.1 |
| 179 | 0100 1101 | 2756.88 | 2802.4 | -0.0 | -1.1 | 25.8 | 2801.6 | 0.9 |
| 180 | 0100 1100 | 2772.50 | 2809.4 | 0.6 | 0.7 | 6.9 | 2817.5 | -8.1 |
| 181 | 0100 1011 | 2788.13 | 2832.0 | 0.8 | 0.8 | 22.6 | 2833.4 | -1.3 |
| 182 | 0100 1010 | 2803.75 | 2847.0 | -0.9 | 0.1 | 14.9 | 2849.3 | -2.3 |
| 183 | 0100 1001 | 2819.38 | 2868.6 | -1.2 | -1.1 | 21.6 | 2865.1 | 3.5 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 731

1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|--------------|-----------------------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS LOWER | RATIO= 1 : 1
UPPER | | POINT | DEVIATION |
| 184 | 0100 1000 | 2835.00 | 2881.1 | 1.1 | 0.0 | 12.5 | 2881.0 | 0.1 |
| 185 | 0100 0111 | 2850.63 | 2893.4 | 0.7 | 0.7 | 12.3 | 2896.9 | -3.5 |
| 186 | 0100 0110 | 2866.25 | 2903.9 | -0.0 | 0.7 | 10.5 | 2912.8 | -8.9 |
| 187 | 0100 0101 | 2881.88 | 2929.4 | -1.4 | -1.4 | 25.6 | 2928.7 | 0.8 |
| 188 | 0100 0100 | 2897.50 | 2949.0 | -0.9 | -0.8 | 19.5 | 2944.6 | 4.4 |
| 189 | 0100 0011 | 2913.13 | 2958.7 | 0.7 | -0.1 | 9.8 | 2960.5 | 1.7 |
| 190 | 0100 0010 | 2928.75 | 2970.7 | 0.7 | 0.7 | 11.9 | 2976.3 | -5.7 |
| 191 | 0100 0001 | 2944.38 | 2995.6 | -1.1 | -0.1 | 24.9 | 2992.2 | 3.4 |
| 192 | 0100 0000 | 2960.00 | 3008.3 | -1.1 | -1.1 | 12.7 | 3008.1 | 0.2 |
| 193 | 0011 1111 | 2975.63 | 3021.7 | -8.9 | -1.0 | 13.4 | 3024.0 | -2.3 |
| 194 | 0011 1110 | 2991.25 | 3028.4 | 0.9 | 0.7 | 6.7 | 3039.9 | -11.5 |
| 195 | 0011 1101 | 3006.88 | 3055.4 | 1.1 | 1.2 | 27.0 | 3055.8 | -0.4 |
| 196 | 0011 1100 | 3022.50 | 3069.7 | -1.1 | 0.0 | 14.2 | 3071.7 | -2.0 |
| 197 | 0011 1011 | 3038.13 | 3087.3 | -0.7 | -0.7 | 17.7 | 3087.5 | -0.2 |
| 198 | 0011 1010 | 3053.75 | 3099.0 | 1.1 | 0.1 | 11.7 | 3103.4 | -4.4 |
| 199 | 0011 1001 | 3069.38 | 3121.4 | 1.8 | 1.8 | 22.4 | 3119.3 | 2.1 |
| 200 | 0011 1000 | 3085.00 | 3124.2 | 0.0 | 1.0 | 2.8 | 3135.2 | -11.0 |
| 201 | 0011 0111 | 3100.63 | 3149.2 | -1.0 | -0.8 | 24.9 | 3151.1 | -1.9 |
| 202 | 0011 0110 | 3116.25 | 3158.4 | 0.5 | 0.5 | 9.2 | 3167.0 | -8.6 |
| 203 | 0011 0101 | 3131.88 | 3183.1 | 0.9 | -0.0 | 24.7 | 3182.9 | 0.2 |
| 204 | 0011 0100 | 3147.50 | 3199.6 | 0.9 | 0.9 | 16.5 | 3198.8 | 0.9 |
| 205 | 0011 0011 | 3163.13 | 3214.8 | -0.9 | -0.0 | 15.2 | 3214.6 | 0.2 |
| 206 | 0011 0010 | 3178.75 | 3224.6 | -0.9 | -0.9 | 9.8 | 3230.5 | -5.9 |
| 207 | 0011 0001 | 3194.38 | 3250.5 | 0.0 | -0.8 | 25.9 | 3246.4 | 4.1 |
| 208 | 0011 0000 | 3210.00 | 3263.5 | 0.9 | 0.9 | 12.9 | 3262.3 | 1.2 |
| 209 | 0010 1111 | 3225.63 | 3274.7 | 1.6 | 1.6 | 11.2 | 3278.2 | -3.5 |

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HS-736 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 732
 1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1.1)



REV 30 01

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-----------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 :1
LOWER | UPPER | | POINT | DEVIATION |
| 210 | 0010 1110 | 3241.25 | 3284.4 | -0.9 | -0.1 | 9.7 | 3294.1 | -9.6 |
| 211 | 0010 1101 | 3256.88 | 3311.0 | -0.9 | -0.9 | 26.5 | 3310.0 | 1.0 |
| 212 | 0010 1100 | 3272.50 | 3316.6 | 0.5 | -0.0 | 5.6 | 3325.8 | -9.2 |
| 213 | 0010 1011 | 3288.13 | 3341.3 | 0.7 | 0.7 | 24.6 | 3341.7 | -0.4 |
| 214 | 0010 1010 | 3303.75 | 3354.9 | -0.1 | 0.4 | 13.6 | 3357.6 | -2.7 |
| 215 | 0010 1001 | 3319.38 | 3378.1 | -1.4 | -1.2 | 23.2 | 3373.5 | 4.6 |
| 216 | 0010 1000 | 3335.00 | 3387.8 | -1.1 | -1.1 | 9.7 | 3389.4 | -1.6 |
| 217 | 0010 0111 | 3350.63 | 3403.2 | 0.5 | -0.1 | 15.4 | 3405.3 | -2.1 |
| 218 | 0010 0110 | 3366.25 | 3413.1 | 0.4 | 0.4 | 9.9 | 3421.2 | -8.1 |
| 219 | 0010 0101 | 3381.88 | 3439.3 | -1.1 | 0.0 | 26.2 | 3437.1 | 2.2 |
| 220 | 0010 0100 | 3397.50 | 3458.3 | -0.8 | -0.8 | 19.1 | 3452.9 | 5.4 |
| 221 | 0010 0011 | 3413.13 | 3470.0 | -0.1 | -0.9 | 11.6 | 3468.8 | 1.1 |
| 222 | 0010 0010 | 3428.75 | 3479.7 | 0.8 | 0.7 | 9.7 | 3484.7 | -5.1 |
| 223 | 0010 0001 | 3444.38 | 3504.9 | 1.1 | 1.3 | 25.3 | 3500.6 | 4.3 |
| 224 | 0010 0000 | 3460.00 | 3517.5 | -1.5 | -0.9 | 12.6 | 3516.5 | 1.0 |
| 225 | 0001 1111 | 3475.63 | 3532.4 | -1.3 | -1.3 | 14.8 | 3532.4 | -0.0 |
| 226 | 0001 1110 | 3491.25 | 3538.6 | 0.8 | -0.1 | 6.3 | 3548.3 | -9.6 |
| 227 | 0001 1101 | 3506.88 | 3566.2 | 1.0 | 1.1 | 27.6 | 3564.1 | 2.1 |
| 228 | 0001 1100 | 3522.50 | 3580.0 | -0.1 | 0.6 | 13.8 | 3580.0 | -0.0 |
| 229 | 0001 1011 | 3538.13 | 3598.5 | -1.2 | -1.2 | 18.5 | 3595.9 | 2.6 |
| 230 | 0001 1010 | 3553.75 | 3610.9 | -1.3 | -1.2 | 12.3 | 3611.8 | -0.9 |
| 231 | 0001 1001 | 3569.38 | 3633.4 | 1.0 | 0.0 | 22.5 | 3627.7 | 5.7 |
| 232 | 0001 1000 | 3585.00 | 3639.0 | 0.8 | 0.8 | 5.6 | 3643.6 | -4.5 |
| 233 | 0001 0111 | 3600.63 | 3660.8 | -0.9 | -0.0 | 21.8 | 3659.5 | 1.3 |
| 234 | 0001 0110 | 3616.25 | 3670.2 | -0.3 | -0.3 | 9.4 | 3675.4 | -5.1 |
| 235 | 0001 0101 | 3631.88 | 3696.3 | -0.2 | -1.1 | 26.0 | 3691.2 | 5.0 |
| 236 | 0001 0100 | 3647.50 | 3712.0 | 0.5 | 0.7 | 15.7 | 3707.1 | 4.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 733

1981/11/30 16:38:03 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=11)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|------------------------------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LEVELS RATIO= 1 : 1
LOWER | UPPER | | POINT | DEVIATION |
| 237 | 0001 0011 | 3663.13 | 3726.2 | 0.2 | 0.2 | 14.3 | 3723.0 | 3.2 |
| 238 | 0001 0010 | 3678.75 | 3736.3 | -0.9 | -0.0 | 10.1 | 3738.9 | -2.6 |
| 239 | 0001 0001 | 3694.38 | 3763.4 | -1.3 | -1.0 | 27.1 | 3754.8 | 8.6 |
| 240 | 0001 0000 | 3710.00 | 3779.7 | 0.9 | 0.1 | 16.3 | 3770.7 | 9.1 |
| 241 | 0000 1111 | 3725.63 | 3788.1 | 0.9 | 0.9 | 8.4 | 3786.6 | 1.5 |
| 242 | 0000 1110 | 3741.25 | 3796.1 | -0.1 | 0.7 | 8.0 | 3802.4 | -6.3 |
| 243 | 0000 1101 | 3756.88 | 3824.3 | -1.4 | -1.2 | 28.2 | 3818.3 | 5.9 |
| 244 | 0000 1100 | 3772.50 | 3839.2 | -0.3 | -0.2 | 14.9 | 3834.2 | 5.0 |
| 245 | 0000 1011 | 3788.13 | 3854.6 | 0.7 | -0.1 | 15.4 | 3850.1 | 4.5 |
| 246 | 0000 1010 | 3803.75 | 3867.4 | 0.4 | 0.6 | 12.8 | 3866.0 | 1.4 |
| 247 | 0000 1001 | 3819.38 | 3891.6 | -1.1 | -0.0 | 24.1 | 3881.9 | 9.7 |
| 248 | 0000 1000 | 3835.00 | 3905.9 | -1.1 | -0.9 | 14.3 | 3897.8 | 8.1 |
| 249 | 0000 0111 | 3850.63 | 3917.8 | -0.1 | -0.8 | 12.0 | 3913.7 | 4.2 |
| 250 | 0000 0110 | 3866.25 | 3926.8 | 0.4 | 0.4 | 9.0 | 3929.5 | 2.7 |
| 251 | 0000 0101 | 3881.88 | 3952.2 | 0.0 | 1.2 | 25.4 | 3945.4 | 6.8 |
| 252 | 0000 0100 | 3897.50 | 3972.5 | -0.8 | 0.0 | 20.3 | 3961.3 | 11.2 |
| 253 | 0000 0011 | 3913.13 | 3984.4 | -1.0 | -0.9 | 11.9 | 3977.2 | 7.2 |
| 254 | 0000 0010 | 3928.75 | 3994.4 | -0.1 | -0.8 | 10.0 | 3993.1 | 1.3 |
| 255 | 0000 0001 | 3944.38 | 4020.0 | 0.9 | 1.0 | 25.6 | 4009.0 | 11.0 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 734
 1981/11/30 16:44:25 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=12)
 S U M M A R Y



NOV 30 '81

CHECK 1) RMS ERROR, 2) THRESHOLD INCREMENT(+/- 0.0 (= THRH INC <= 31.2)
 THE REMAINING DATA ARE FOR INFORMATION ONLY

BEST FIT STRAIGHT LINE IS: $Y = 15.873X - 42.1MV$

DEVIATION OF SLOPE FROM IDEAL IS: 1.590%
 OFFSET IS:-42.1MV
 COEFFICIENT OF DETERMINATION IS: $R^2 = .99998710$
 ANALOG INPUT DURING DC RESTORE IS:64.5MV

RMS ERROR = 4.166MV REQMT: RMS ERROR <=7.812MV

THRESHOLD INCREMENT MEASUREMENT

| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
|--|-------------|----------|---------|-------------|--------------------|
| 27.7MV | 277 | 15.931MV | 3.6MV | 200 | 5.470MV |
| LOWER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 1.4MV | 196 | -0.073MV | -4.2MV | 238 | .858MV |
| UPPER LIMIT AT OUTPUT LEVELS RATIO = 1 : 1 | | | | | |
| MAXIMUM | THRESHOLD # | AVERAGE | MINIMUM | THRESHOLD # | STANDARD DEVIATION |
| 1.3MV | 239 | -0.019MV | -1.2MV | 138 | .792MV |

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TEST PASSED

4S-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 735

1981/11/30 16:44:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.

1.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=1?)



| THRESHOLD A/D OUTPUT
NUMBER THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|--|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| LEVELS RATIO= 1 : 1 | | | | | | | |

REV 30 '81

THE FOLLOWING DATA ARE FOR INFORMATION ONLY

| | | | | | | | | |
|----|-----------|---------|-------|------|------|------|-------|------|
| 1 | 1111 1111 | -24.375 | -29.6 | 0.2 | 0.9 | | -26.2 | -3.4 |
| 2 | 1111 1110 | -8.750 | -17.6 | -1.0 | -0.0 | 12.1 | -10.4 | -7.2 |
| 3 | 1111 1101 | 6.875 | 6.6 | -0.9 | -0.8 | 24.1 | 5.5 | 1.1 |
| 4 | 1111 1100 | 22.500 | 19.5 | -0.1 | -0.9 | 13.0 | 21.4 | -1.8 |
| 5 | 1111 1011 | 38.125 | 36.6 | 0.6 | 0.7 | 17.0 | 37.2 | -0.7 |
| 6 | 1111 1010 | 53.750 | 49.5 | 0.7 | 0.8 | 12.9 | 53.1 | -3.6 |
| 7 | 1111 1001 | 69.375 | 73.9 | -1.0 | -0.9 | 24.4 | 69.0 | 4.9 |
| 8 | 1111 1000 | 85.000 | 78.5 | -0.9 | -0.9 | 4.6 | 84.9 | -6.3 |
| 9 | 1111 0111 | 100.625 | 98.7 | 0.6 | -0.1 | 20.2 | 100.7 | -2.0 |
| 10 | 1111 0110 | 116.250 | 111.9 | 0.9 | 0.8 | 13.2 | 116.6 | -4.7 |
| 11 | 1111 0101 | 131.875 | 134.1 | -0.1 | 0.9 | 22.2 | 132.5 | 1.6 |
| 12 | 1111 0100 | 147.500 | 151.0 | -0.9 | -0.8 | 16.8 | 148.4 | 2.6 |
| 13 | 1111 0011 | 163.125 | 165.4 | -0.8 | -0.8 | 14.4 | 164.2 | 1.1 |
| 14 | 1111 0010 | 178.750 | 180.4 | 0.7 | 0.9 | 15.0 | 180.1 | 0.3 |
| 15 | 1111 0001 | 194.375 | 201.4 | 0.8 | 0.8 | 21.0 | 196.0 | 5.4 |
| 16 | 1111 0000 | 210.000 | 211.5 | -0.9 | 0.0 | 10.0 | 211.9 | -0.4 |
| 17 | 1110 1111 | 225.625 | 226.8 | -0.9 | -0.8 | 15.3 | 227.7 | -1.0 |
| 18 | 1110 1110 | 241.250 | 238.4 | -0.1 | -1.0 | 11.6 | 243.6 | -5.2 |
| 19 | 1110 1101 | 256.875 | 261.3 | 0.6 | 0.7 | 22.9 | 259.5 | 1.8 |
| 20 | 1110 1100 | 272.500 | 276.2 | 0.9 | 0.9 | 14.9 | 275.3 | 0.9 |
| 21 | 1110 1011 | 288.125 | 292.5 | -0.9 | -0.8 | 16.3 | 291.2 | 1.3 |
| 22 | 1110 1010 | 303.750 | 306.3 | -0.9 | -0.9 | 13.7 | 307.1 | -0.8 |
| 23 | 1110 1001 | 319.375 | 328.4 | 0.8 | -0.0 | 22.1 | 323.0 | 5.4 |
| 24 | 1110 1000 | 335.000 | 336.4 | 0.8 | 0.8 | 8.0 | 338.8 | -2.5 |
| 25 | 1110 0111 | 350.625 | 353.9 | -0.1 | 0.4 | 17.5 | 354.7 | -0.8 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 736
 1981/11/30 16:44:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-8 A/D THRESHOLD TEST (BAND= 4, SENSOR=L2)



NOV 30 '81

| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 26 | 1110 0110 | 366.250 | 368.5 | -1.0 | -1.0 | 14.6 | 370.6 | -2.1 |
| 27 | 1110 0101 | 381.875 | 390.3 | -0.9 | -0.8 | 21.8 | 386.5 | 3.9 |
| 28 | 1110 0100 | 397.500 | 408.0 | 0.7 | 0.8 | 17.7 | 402.3 | 5.7 |
| 29 | 1110 0011 | 413.125 | 419.7 | 0.7 | 0.8 | 11.7 | 418.2 | 1.5 |
| 30 | 1110 0010 | 428.750 | 436.8 | -1.3 | -0.0 | 17.1 | 434.1 | 2.7 |
| 31 | 1110 0001 | 444.375 | 457.4 | -1.0 | -0.9 | 20.6 | 450.0 | 7.4 |
| 32 | 1110 0000 | 460.000 | 462.6 | -0.0 | -0.9 | 5.2 | 465.8 | -3.2 |
| 33 | 1101 1111 | 475.625 | 481.5 | 0.8 | 0.9 | 18.9 | 481.7 | -0.2 |
| 34 | 1101 1110 | 491.250 | 492.2 | 0.9 | 0.8 | 10.7 | 497.6 | -5.3 |
| 35 | 1101 1101 | 506.875 | 517.5 | -0.6 | -0.7 | 25.3 | 513.4 | 4.1 |
| 36 | 1101 1100 | 522.500 | 530.5 | -0.9 | -0.9 | 13.0 | 529.3 | 1.2 |
| 37 | 1101 1011 | 538.125 | 547.1 | 0.7 | -0.1 | 16.6 | 545.2 | 1.9 |
| 38 | 1101 1010 | 553.750 | 559.6 | 0.8 | 0.8 | 12.5 | 561.1 | -1.5 |
| 39 | 1101 1001 | 569.375 | 583.6 | -0.1 | 0.9 | 24.0 | 576.9 | 6.7 |
| 40 | 1101 1000 | 585.000 | 591.2 | -0.9 | -0.9 | 7.6 | 592.8 | -1.6 |
| 41 | 1101 0111 | 600.625 | 609.4 | -0.2 | -0.1 | 18.2 | 608.7 | 0.7 |
| 42 | 1101 0110 | 616.250 | 622.1 | 0.9 | 1.0 | 12.6 | 624.6 | -2.5 |
| 43 | 1101 0101 | 631.875 | 644.8 | 0.5 | 0.7 | 22.7 | 640.4 | 4.3 |
| 44 | 1101 0100 | 647.500 | 661.2 | -0.7 | 0.0 | 16.4 | 656.3 | 4.9 |
| 45 | 1101 0011 | 663.125 | 675.5 | -1.0 | -0.9 | 14.3 | 672.2 | 3.3 |
| 46 | 1101 0010 | 678.750 | 690.8 | -0.1 | -0.9 | 15.4 | 688.1 | 2.8 |
| 47 | 1101 0001 | 694.375 | 711.5 | 0.7 | 0.7 | 20.7 | 703.9 | 7.6 |
| 48 | 1101 0000 | 710.000 | 724.0 | 0.8 | 0.8 | 12.5 | 719.8 | 4.2 |
| 49 | 1100 1111 | 725.625 | 736.5 | -0.8 | -0.8 | 12.5 | 735.7 | 0.8 |
| 50 | 1100 1110 | 741.250 | 747.8 | -1.0 | -1.0 | 11.2 | 751.6 | -3.8 |
| 51 | 1100 1101 | 756.875 | 771.0 | 0.8 | -0.0 | 23.2 | 767.4 | 3.6 |

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HS-236 THEMATIC MAPPER MUX UNIT TEST MODEL.. FLT. S/N 3 PAGE 73/
 1981/11/30 16:44:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=12)



| THRESHOLD
NUMBER | A/D OUTPUT
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM PREV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|-------------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 52 | 1100 1100 | 772.500 | 786.0 | 0.8 | 0.9 | 14.9 | 783.3 | 2.7 |
| 53 | 1100 1011 | 788.125 | 800.8 | -0.1 | 0.8 | 14.8 | 799.2 | 1.6 |
| 54 | 1100 1010 | 803.750 | 814.8 | -0.9 | -0.9 | 14.1 | 815.0 | -0.2 |
| 55 | 1100 1001 | 819.375 | 838.2 | -0.9 | -0.8 | 23.3 | 830.9 | 7.2 |
| 56 | 1100 1000 | 835.000 | 848.7 | 0.8 | 0.9 | 10.5 | 846.8 | 1.9 |
| 57 | 1100 0111 | 850.625 | 862.4 | 0.1 | 0.0 | 13.7 | 862.7 | -0.3 |
| 58 | 1100 0110 | 866.250 | 877.0 | -1.0 | -0.0 | 14.5 | 878.5 | -1.6 |
| 59 | 1100 0101 | 881.875 | 899.0 | -0.8 | -0.8 | 22.0 | 894.4 | 4.5 |
| 60 | 1100 0100 | 897.500 | 917.4 | -0.0 | -0.9 | 18.5 | 910.3 | 7.1 |
| 61 | 1100 0011 | 913.125 | 927.5 | 1.0 | 1.0 | 10.1 | 926.2 | 1.3 |
| 62 | 1100 0010 | 928.750 | 943.4 | 1.0 | 1.0 | 15.9 | 942.0 | 1.3 |
| 63 | 1100 0001 | 944.375 | 965.1 | -0.7 | -0.8 | 21.7 | 957.9 | 7.2 |
| 64 | 1100 0000 | 960.000 | 974.7 | -0.9 | -0.8 | 9.6 | 973.8 | 0.9 |
| 65 | 1011 1111 | 975.625 | 989.5 | 0.9 | -0.0 | 14.9 | 989.7 | -0.1 |
| 66 | 1011 1110 | 991.250 | 999.1 | 0.7 | 0.7 | 9.6 | 1005.5 | -6.4 |
| 67 | 1011 1101 | 1006.88 | 1024.2 | -0.1 | 0.7 | 25.1 | 1021.4 | 2.8 |
| 68 | 1011 1100 | 1022.50 | 1037.9 | -0.9 | -0.9 | 13.7 | 1037.3 | 0.6 |
| 69 | 1011 1011 | 1038.13 | 1056.8 | -0.8 | -0.8 | 18.9 | 1053.1 | 3.6 |
| 70 | 1011 1010 | 1053.75 | 1067.6 | 1.0 | 0.9 | 10.8 | 1069.0 | -1.4 |
| 71 | 1011 1001 | 1069.38 | 1090.8 | 0.8 | 0.9 | 23.2 | 1084.9 | 5.9 |
| 72 | 1011 1000 | 1085.00 | 1095.6 | -0.8 | -0.1 | 4.8 | 1100.8 | -5.2 |
| 73 | 1011 0111 | 1100.63 | 1117.5 | -1.0 | -1.0 | 21.9 | 1116.6 | 0.9 |
| 74 | 1011 0110 | 1116.25 | 1128.9 | 0.0 | -0.6 | 11.4 | 1132.5 | -3.6 |
| 75 | 1011 0101 | 1131.88 | 1151.2 | 0.8 | 0.7 | 22.3 | 1148.4 | 2.8 |
| 76 | 1011 0100 | 1147.50 | 1166.9 | 0.9 | 0.9 | 15.7 | 1164.3 | 2.6 |
| 77 | 1011 0011 | 1163.13 | 1182.5 | -0.4 | -0.4 | 15.6 | 1180.1 | 2.4 |
| 78 | 1011 0010 | 1178.75 | 1196.2 | -0.8 | -0.9 | 13.7 | 1196.0 | 0.2 |

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HS-236 THEMATIC MAPPER MIX UNIT TEST MODEL.. FL1. S/N 3 PAGE 738
 1981/11/30 16:44:39 PENALTY FULL PERFORMANCE @ AMBIENT TEMP.
 3.5.3.5-B A/D THRESHOLD TEST (BAND= 4, SENSOR=12)

| THRESHOLD
NUMBER | A/D
THRESHOLD | IDEAL
VALUE
(MV) | ANALOG INPUT VOLTAGE (MV) | | | INCREASE
FROM REFV
THRESHOLD | BEST FIT STRAIGHT LINE | |
|---------------------|------------------|------------------------|---------------------------|-------|-------|------------------------------------|------------------------|-----------|
| | | | NOMINAL | LOWER | UPPER | | POINT | DEVIATION |
| 79 | 1011 0001 | 1194.38 | 1217.7 | 1.2 | -0.0 | 21.5 | 1211.9 | 5.8 |
| 80 | 1011 0000 | 1210.00 | 1229.9 | 0.9 | 0.9 | 12.2 | 1227.8 | 2.2 |
| 81 | 1010 1111 | 1225.63 | 1242.0 | 0.0 | 1.1 | 12.0 | 1243.6 | -1.7 |
| 82 | 1010 1110 | 1241.25 | 1259.1 | -1.0 | -1.0 | 11.2 | 1259.5 | -6.4 |
| 83 | 1010 1101 | 1256.88 | 1277.4 | -0.9 | -0.8 | 24.2 | 1275.4 | 2.0 |
| 84 | 1010 1100 | 1272.50 | 1291.9 | 0.8 | 0.9 | 14.5 | 1291.2 | 0.6 |
| 85 | 1010 1011 | 1288.13 | 1308.4 | 0.6 | 0.7 | 16.5 | 1307.1 | 1.2 |
| 86 | 1010 1010 | 1303.75 | 1319.5 | -0.9 | 0.0 | 11.2 | 1323.0 | -3.5 |
| 87 | 1010 1001 | 1319.38 | 1344.1 | 0.9 | -0.9 | 24.6 | 1338.9 | 5.2 |
| 88 | 1010 1000 | 1335.00 | 1355.0 | 0.0 | -1.0 | 10.8 | 1354.7 | 0.2 |
| 89 | 1010 0111 | 1350.63 | 1369.0 | 0.8 | 0.9 | 14.0 | 1370.6 | -1.7 |
| 90 | 1010 0110 | 1366.25 | 1380.9 | 1.0 | 0.9 | 11.9 | 1386.5 | -5.6 |
| 91 | 1010 0101 | 1381.88 | 1404.2 | -0.8 | -1.0 | 23.3 | 1402.4 | 1.8 |
| 92 | 1010 0100 | 1397.50 | 1422.6 | -0.9 | -0.9 | 10.4 | 1418.2 | 4.4 |
| 93 | 1010 0011 | 1413.13 | 1433.7 | 0.8 | -0.0 | 11.1 | 1434.1 | -0.4 |
| 94 | 1010 0010 | 1428.75 | 1448.2 | 0.8 | 0.8 | 14.5 | 1450.0 | -1.8 |
| 95 | 1010 0001 | 1444.38 | 1470.1 | -0.0 | 0.9 | 21.9 | 1465.9 | 4.2 |
| 96 | 1010 0000 | 1460.00 | 1480.3 | -0.9 | -0.8 | 10.2 | 1481.7 | -1.4 |
| 97 | 1001 1111 | 1475.63 | 1495.7 | -0.9 | -0.9 | 15.4 | 1497.6 | -1.9 |
| 98 | 1001 1110 | 1491.25 | 1504.1 | 0.8 | 0.8 | 8.4 | 1513.5 | -9.4 |
| 99 | 1001 1101 | 1506.88 | 1529.0 | 0.9 | 0.8 | 24.9 | 1529.4 | -0.4 |
| 100 | 1001 1100 | 1522.50 | 1542.9 | -0.9 | -0.0 | 13.9 | 1545.2 | -2.4 |
| 101 | 1001 1011 | 1538.13 | 1561.6 | -0.7 | -0.7 | 18.7 | 1561.1 | 0.5 |
| 102 | 1001 1010 | 1553.75 | 1573.3 | 0.0 | -0.8 | 11.7 | 1577.0 | -3.7 |
| 103 | 1001 1001 | 1569.38 | 1595.3 | 0.8 | 0.8 | 22.5 | 1592.8 | 3.0 |
| 104 | 1001 1000 | 1585.00 | 1601.8 | 0.9 | 0.8 | 5.9 | 1608.7 | -7.0 |

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